

CLASS 141, FLUENT MATERIAL HANDLING, WITH RECEIVER OR RECEIVER COACTING MEANS

SECTION I - CLASS DEFINITION

GENERAL STATEMENT OF CLASS SUBJECT MATTER

This class provides for the transfer of fluent material, gaseous, liquid or flowable granular solids, through a flow confining system, the source and terminal or receiver parts of which are normally separable, i.e., one or both parts are portable or are otherwise capable of or intended to have a utility in their separated condition. Such utility ordinarily lies in portability of a separated part, either for use of the contents material in another place, or for use of one of the system parts with another complementary part. Each part therefore must comprise an entity capable of use independent of the other, and together the parts provide a flow path from a source or dispenser to a terminal part or receiver, thereby comprising a filling system.

This class takes a mere dispenser-receiver combination where separability is claimed or is inherent, and also takes means to deliver material to a receiver when there is claimed some system characteristic which peculiarly relates the receiver to the dispenser to define a coaction of one with the other to complete the dispenser-receiver relationship; as for example, guiding or confining means for the receiver, related conveying means for either the receiver or dispenser or both, or a receiver support which is not merely a support for the dispenser but is some member or modification beyond the structural requirements therefor.

The scope of this class does not include method and apparatus for handling fluent material except in a manner characteristic of fluid flow. For the most part the material supply processes and apparatus involve discharge assistants and fluid flow guiding means of the class of Dispensing (see References to Other Classes, below).

This class takes systems as above defined including receivers which close (i.e., self-closing) upon separation or uncoupling from the supply.

This class also includes processes of varying gaseous conditions in a vessel or container, i.e., evacuating or maintaining a vacuum in a container, by sorption or gettinger means incased in such container where the claims are silent respecting any sealing off, or do not include

steps of closing and additionally where the sorption or gettinger is not of the kind provided for elsewhere.

This class also includes certain combinations and sub-combinations which appear to fall short of the receiver coacting means requirement set out above, as in the last four "first line" subclass groups of this class. Though they require no more than what might be considered to be Class 222 subject matter, the concept of a normally detached, readily connectable, dispenser-receiver relation (see I (2) above) is satisfied.

SECTION II - LINES WITH OTHER CLASSES AND WITHIN THIS CLASS

COMBINATIONS OF FILLING APPARATUS WITH TREATING OR MANUFACTURING APPARATUS

As between this class (141) and Class 53, Package Making, Class 53 takes methods of and apparatus for packaging where some manufacturing operation as to either the package or its contents material is included anywhere along the line.

Class 53 includes among other packaging inventions the following:

Chemical packaging:

The selection of materials for cover and/or lining compatible with chemical or reactive contents material for package making is considered a type of manufacture, and is included in Class 53.

Article packaging:

Methods of packaging articles and apparatus for packaging articles not however those which rely upon fluid-flow handling methods or apparatus.

Contents treating and packaging:

Methods of and apparatus for packaging with or without closing if the contents material is treated or prepared by processes or apparatus involving an irreversible operation more commonly known as manufacture.

Filling with fluent material:

Filling with fluent materials where an arrangement not obtainable by fluent material flow results. Mere compacting is not included, but the packaging of a compacted charge which is subsequently handled as an

article is, and also compacting to produce a package of a definite predetermined shape.

Receiver or cover making and filling:

Methods of and apparatus for forming a cover or receiver and filling with fluent material or articles with or without closing including opening the receiver, e.g., a collapsed bag, or any covered receiver. Opening self-closing type receivers and filling with fluents is excepted. See I above.

Receiver filling and closing:

Methods of and apparatus for filling receivers with articles and/or fluent materials and closing such receivers.

Receiver filling:

Filling apparatus including additional means claimed in combination therewith having utility only in a closing or closure applying or associating function is included in Class 53, for example, relative to "jetting", such structure for supporting closure means and moving same through a jetting stream or the like with an associated filled receiver even though the step of or means for depositing the closure on the receiver is omitted, or receiver spacing or holding means after filling for cover application or a closing operation without applying the closure or closing.

TREATMENT CLASSES

As to the treatment classes, the line is whether or not there is present some handling operation other than supplying material to or removing it from the treatment area or chamber. Those patents which claim more than the handling incidental to treatment are placed in the appropriate material handling class, including this one, as they are also in many instances where the treatment device is claimed by name only, with incidental handling means and no other.

SECTION III - REFERENCES TO OTHER CLASSES

SEE OR SEARCH CLASS:

- 5, Beds, subclasses 671+ for filling or draining a waterbed bladder.
- 28, Textiles: Manufacturing, subclasses 118+ and 121+ for processes of or apparatus for compacting loose fibers in a tampon or wad and

inserting the same into a sheath or applicator device.

- 47, Plant Husbandry, subclass 58.1 for miscellaneous processes of packaging or potting plants and the like and subclass 1.01 for miscellaneous apparatus therefor.
- 52, Static Structures (e.g., Buildings), subclasses 742.1+ for a process of filling a preformed cavity in an in situ erected type structure with a flowable material.
- 53, Package Making, appropriate subclasses for methods or and apparatus for encompassing or encasing goods or materials and see Lines With Other Classes of this class, above.
- 73, Measuring and Testing, subclasses 864.01+ for a pipette, per se.
- 86, Ammunition and Explosive-Charge Making, for processes and apparatus there classified on an art basis.
- 100, Presses, for methods and apparatus for compacting material in filler receivers where feeding of fluent material into the receiver is not involved and see section V of that class (100).
- 116, Signals and Indicators, appropriate subclasses for indicators and mechanically produced signals.
- 119, Animal Husbandry, subclasses 14.01+ for milking machines involving vacuumizing the receiver.
- 137, Fluid Handling, for methods of and apparatus for handling fluid materials, appropriate subclasses, where "normally detached, connectable supply and receiver" does not predominate, and particularly 154+ for diverse fluid containing pressure systems; 223+ for inflatable article filling chuck and/or stem; 263 and 571+ for fluent material handling systems comprising plural tanks connected for serial flow; 317+ for means for tapping systems under pressure; and 386+ for liquid level responsive or maintaining systems.
- 177, Weighing Scales, subclasses 52+ for a weigher correlating the movement of a series of receivers with respect to the weigh station, subclass 59 for a weigher correlated with a receiver, subclasses 60+ for weigher responsive material control without handling or treatment in addition to supplying, filling, weighing, removing material from the weigher or removing a receiver from filling-weighing position, and subclasses 253+ for load holders, particularly subclasses 262+ for scale pans.

- 193, Conveyors, Chutes, Skids, Guides, and Ways, appropriate subclasses particularly 2+ for loading and unloading chutes for conveying material by gravity flow.
- 198, Conveyors: Power-Driven, for a power-driven conveyor, or for such a conveyor combined with a gravity conveyor.
- 206, Special Receptacle or Package, appropriate subclasses for a container particularly configured to hold a specific article or material including an article (s) or material (s) put up as a mercantile unit.
- 210, Liquid Purification or Separation, subclass 235 for a filter and coating receiver, and subclasses 473+ for a filter-receiver combination.
- 210, Liquid Purification or Separation, subclass 235, 473.+ (From Index and Miscellaneous Class Notes.)
- 220, Receptacles, subclasses 86.1+ for attachments which serve as filling devices, such as attached funnels.
- 221, Article Dispensing, subclass 96 for receptacle dispensers combined with a fluent material dispenser where the relationship is nominal and does not qualify under Section I e.g., the receiver is not supplied to, guided into, or supported at the fluent material dispenser for filling by the receptacle dispensing means.
- 222, Dispensing, appropriate subclasses for dispensers, and subclass 130 for plural compartments, one defining a dispensing means, the other storage means for cups or receptacles and not qualifying as an article dispenser for Class 221.
- 229, Envelopes, Wrappers, and Paperboard Boxes, for receptacles of that material.
- 241, Solid Material Comminution or Disintegration, for comminutors claimed in combination with means to discharge the material therefrom into a portable receptacle. See particularly subclass 100 and the class definition of that class (241).
- 241, Solid Material Comminution or Disintegration, subclass 100. (From Index and Miscellaneous Class Notes.)
- 248, Supports, subclass 94 and 95+ for strainer or funnel type and bag supports respectively wherein the strainer, funnel spout etc., are claimed by name only and wherein the means supporting the bag is not modified to hold and fill the bag and where flow control is not claimed.
- 250, Radiant Energy, subclasses 428+ for ray energy generators there classified including means to admit vapor or gas into, or to withdraw gas or vapor from the interior of the envelope of the X-ray generator.
- 250, Radiant Energy, subclasses 428+. (From Index and Miscellaneous Class Notes.)
- 251, Valves and Valve Actuation, for actuators there classified.
- 260, Chemistry of Carbon Compounds, or the appropriate composition class, for processes of storing chemicals when a chemical combination is involved from which the chemicals may be subsequently released, even though the storing takes place in a container or the initial reaction and/or the decomposition reaction is claimed.
- 264, Plastic and Nonmetallic Article Shaping or Treating: Processes, appropriate subclasses, for processes within the class definition, in which plastic material may be shaped or molded in a receptacle and subsequently removable therefrom, said receptacle acting as a mold. For treatment of a mold to facilitate removal thereof from the contained molded material, see subclass 39, 213, 221, 224, 264, 300, 313+, 338, and 353.5.
- 313, Electric Lamp and Discharge Devices, particularly subclass 7, 545, 546, 547+ and 552 for evacuating pumps and gas or vapor generating or pressure regulating means.
- 313, Electric Lamp and Discharge Devices, subclass 7 and 545, 546, 547+, 552. (From Index and Miscellaneous Class Notes.)
- 315, Electric Lamp and Discharge Devices: Systems, subclasses 108+ for confined gas or vapor type load device with pressure regulating means.
- 315, Electric Lamp and Discharge Devices: Systems, subclasses 108+. (From Index and Miscellaneous Class Notes.)
- 340, Communications: Electrical, appropriate subclasses for electric signaling.
- 401, Coating Implements With Material Supply, subclasses 118+ for a container for a supply of coating material in combination with a separable applicator (which may be a part of the closure for the container) which transports the material from the container and applies it to a work surface by rubbing contact therewith; provided that force-applying means to move material from the container to the applicator is either entirely absent from the combination or is present in the applicator only.
- 414, Material or Article Handling, subclasses 404+ for a device for emptying the contents of a portable receptacle into a portable receiving

- means, and wherein the transfer is accomplished by mutually inverting both the receiver and the same.
- 422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, for process and apparatus appropriate to that class and see this class (141) particularly subclass 11, 70 and 85.
- 422, Chemical Apparatus and Process Disinfecting, Deodorizing, Preserving, or Sterilizing, subclasses 40+ for process involving protective layers. (From Index and Miscellaneous Class Notes.)
- 425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclasses 447+ for the combination of means providing a shaping surface (e.g., a mold, etc.) and means feeding fluent stock thereto; see the search notes thereunder.
- 426, Food or Edible Material: Processes, Compositions, and Products, subclasses 392+ for food working operations combined with packaging.
- 445, Electric Lamp or Space Discharge Component or Device Manufacturing, for methods of manufacture and apparatus for electric lamp devices, particularly subclasses 38+, 53+, 70 and 73 for combined operations.
- 445, Electric Lamp or Space Discharge Component or Device Manufacturing, subclasses 38+, 53+, 70, and 73. (From Index and Miscellaneous Class Notes.)
- 452, Butchering, subclasses 35+ for apparatus dealing with sausage stuffing.
- 470, Threaded, Headed Fastener, or Washer Making: Process and Apparatus, appropriate subclasses 164+ for distributors and feeders.
- 585, Chemistry of Hydrocarbon Compounds, especially subclasses 2+, 15 and 899 for processes which may involve the storage of hydrocarbons.

SECTION IV - GLOSSARY

CUT-OFF

The term as used in this class means some mechanically operative element or device (not gas pressure) which arrests flow of material.

CYCLICAL OPERATION

This term describes a filling system in which no operator intervention is required from the time a receiver is

placed in filling position at least until the receiver is filled and ready to be removed. The flow of contents material may be cut off by a movement of the receiver which occurs in the sequence of events in the machine.

DISPENSER

A mechanism which affirmatively effects or permits separation of a portion of the contents material supply thereof and discharge in a definite direction or path.

FILLING HEAD

The portion of a dispenser or source part of the system which comprises the flow outlet or flow confining terminus and other flow confining structure which may be in advance (up-stream) of it back to the supply.

FUNNEL

A fluid handling device of increasingly restricted capacity in the direction of flow and having its free end arranged to enter into the inlet of a receiver, being ordinarily designed to collect an unconfined flow and channel it into a narrower flow path or one which is out of line with the previous path or flow direction. The material may be retained in the funnel body by valve means, and the funnel may comprise the only claimed supply means of the filling system or an intermediate or final receiver, and may be supported by either the preceding or succeeding flow confining means, or by a means external to the flow system.

MANUFACTURE

In order to draw a line with the manufacturing classes which may include filling, the term is used here as meaning an operation on material, or apparatus for operating on material, to effect a permanent or irreversible change in the physical character of the material, e.g. cutting, crushing, shaping and boring, or to arrange the parts of an article of manufacture into their desired relation, i.e., assembling.

MATERIAL GUIDE

Means other than funnels to direct material from supply to receiver without forming a flow-confining connection between them. Examples of material guides in this class are: (1) A nonflow support for contents material associated with a receiver support over which the material can be pushed or moved manually into the receiver; (2) A flow directing detachable extension of a receiver inlet which may be either tubular or channel-shaped in cross-

section. If tubular and tapering, it must either engage the receiver externally or be located entirely within the receiver. Cf funnel, above; or (3) An extension of a supply container which is hand held, the extension being designed to engage the receiver and direct the flow thereto.

RECEIVER

A device which accepts the material from the dispenser and is capable of confining fluids within a predetermined or prescribed volumetric configuration, and does not therefore rely upon surface tension or molecular cohesive forces to preclude escape of material therefrom.

SUPPLY MEANS

The contents material confining means of the dispenser.

SYSTEM

The combination of dispenser and receiver in flow exchange relation with any or all appurtenances thereof.

TREATMENT

With respect to the treatment classes, treatment as here construed is concerned with reversible changes in the physical characteristics of contents material such as exemplified by agitating, heating, cooling, sorting and the like.

SUBCLASSES

1 This subclass is indented under the class definition. Processes .

- (1) Note. All patents containing method claims drawn to the method of operation of any of the systems or parts thereof involved in the class are included in this and the indented subclasses, but methods of making parts of the systems are not included. They will be found in the subclass providing for the system or part.

SEE OR SEARCH CLASS:

- 53, Package Making, subclasses 396+ for methods pertaining to the subject matter of that class, but including methods of this class with the additional step of closing or otherwise manipulating for the purposes of Class 53.

137, Fluid Handling, subclasses 1+ for processes analogous to the processes of this class but not involving the feature of separability of the system components.

222, Dispensing, subclass 1 for processes of dispensing.

1.1 This subclass is indented under subclass 1. Processes for filling battery grids or electrodes with fluent material.

SEE OR SEARCH THIS CLASS, SUBCLASS:

32, for the corresponding apparatus.

2 This subclass is indented under subclass 1. Processes in which a dispenser type receiver is filled by steps involving manipulation of the dispenser as an incident to or aid to refilling or filling the supply chamber.

SEE OR SEARCH THIS CLASS, SUBCLASS:

18+, for apparatus for filling or refilling dispensers and involving the use of dispenser parts in connection with or as an aid to the operation of the apparatus.

SEE OR SEARCH CLASS:

222, Dispensing, for processes of dispensing.

3 This subclass is indented under subclass 2. Processes in which the dispenser receiver is of the aerosol type, i.e., the material to be dispensed, powder or liquid, is dissolved in or carried by a vaporizing propellant which forms the charge of the dispenser.

SEE OR SEARCH THIS CLASS, SUBCLASS:

20, for apparatus for filling or refilling aerosol type dispensers.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 394+ for aerosol type dispensers.
239, Fluid Sprinkling, Spraying, and Diffusing, subclasses 8+ for processes of mixing a material with a fluid and then spraying; subclasses 337+ for apparatus spraying a plurality of

- materials and comprising a holder for one material to be entrained or dissolved in a gas; subclass 372 for aerosol type spray holders with a specifically claimed nozzle; subclasses 398+ for mixing and discharging a plurality of fluids; and subclass 573 for a discharge nozzle having a valve providing an expansion chamber of the aerosol type.
- 516, Colloid Systems and Wetting Agents; Subcombinations Thereof; Processes of Making, Stabilizing, Breaking, or Inhibiting, subclasses 1+ for continuous gas or vapor phase colloid system (e.g., smoke, fog, aerosol, cloud, mist) or agents for such systems or making or stabilizing such systems or agents, when generically claimed or when there is no hierarchically superior provision in the USPC for the specifically claimed art, especially subclasses 6+ for a colloid system which contains a propellant which contains an intended component with a boiling point below 68 oF/20 oC at one atmosphere, i.e., exists as gas or vapor at STP, such as propellants containing compressed air, or adsorbed or chemically bound CO 2.
- 4 This subclass is indented under subclass 1. Processes which include steps relating to the presence, absence or manipulation of gas in connection with the receiver.
- (1) Note. Processes of treating the contents of the receiver while in the receiver, and also processes of pretreating the receiver with gaseous fluid are included.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 5+, for processes of filling receivers with gas and nongaseous fluent materials.
- 8, for processes for evacuating receivers and subsequently filling with gas.
- 37+, for apparatus pertaining to the filling of receivers under conditions involving gas and contents material other than gas in a confined system, and see the search notes to subclass 37 for other apparatus in this and other
- classes for filling apparatus involving gaseous modification or application.
- SEE OR SEARCH CLASS:
- 53, Package Making, subclass 403 for processes for filling a receiver with gas with subsequent closing, and subclasses 432+ for processes in which vacuum treatment or gas treatment is applied for contents treatment.
- 95, Gas Separation: Processes, for processes of gas separation, per se.
- 137, Fluid Handling, subclasses 154+ for fluid handling pressure systems containing diverse fluids, subclasses 1+ for fluid handling processes involving gases, especially subclass 12.5 for processes for handling carbonated beverages.
- 5 This subclass is indented under subclass 4. Processes in which fluent material other than gaseous material is handled in connection with the filling operation.
- (1) Note. The materials other than gaseous may be either liquid or fluent solids.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 37+, for apparatus for filling with gas and fluent material other than gas, and see the search notes to subclass 37 for additional search fields.
- 6 This subclass is indented under subclass 5. Processes in which gaseous material is introduced into the receiver ahead of nongaseous material in order to equalize pressure between receiver and supply prior to filling with the main contents material.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 37+, for apparatus for carrying out the processes of this subclass.
- 7 This subclass is indented under subclass 5. Processes in which gaseous material is withdrawn from the container before, during or after filling of the container with nongaseous material.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 59+, for apparatus for filling receivers with evacuation of gaseous material from the receiver before or during filling with other material.
 64, for gas treatment of filled receivers.
- SEE OR SEARCH CLASS:
 53, Package Making, for processes for contents treating with vacuum or gas in processes of that class, which may be the processes of Class 141 with additional steps pertaining to the manufacture of either the contents or the receiver.
- 8** This subclass is indented under subclass 4. Processes in which gaseous material is removed from a receiver.
- (1) Note. The product of this operation is a receiver more or less completely evacuated and with or without a refilling of gaseous material.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 4, for filling with gas without evacuating steps.
 65+, for evacuation apparatus, and see the search notes to subclass 65 for additional search field.
- SEE OR SEARCH CLASS:
 53, Package Making, subclass 405 for processes of gas evacuation and closing, and subclass 408 for gas evacuation followed by gas filling and closing.
 313, Electric Lamp and Discharge Devices, subclass 7 and 174+ for evacuating pumps and with getter gas or vapor generating means or pressure regulating means there classified.
 445, Electric Lamp or Space Discharge Component or Device Manufacturing, subclasses 38+, 53+, 70, and 73 for methods of manufacture and apparatus for electric lamp devices including evacuation and degasification combined with other operations.
- 9** This subclass is indented under subclass 1. Processes in which plural fluent materials are supplied to the receiver.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 100+, for apparatus for filling receivers with plural fluent materials.
- SEE OR SEARCH CLASS:
 53, Package Making, subclasses 470+ for processes of filling receivers with articles and fluent materials.
- 10** This subclass is indented under subclass 1. Processes in which the receiver is a bag, i.e., a receptacle of nonself-sustaining material, the manipulation of which is not characteristic of the handling of preformed rigid receivers.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 114+, for apparatus for filling flexible or collapsible receivers in which there is manipulation of the receivers to change its shape or dimensions, and see the search notes to subclass 114 for additional search fields.
- 11** This subclass is indented under subclass 1. Processes involving alteration of a physical characteristic of the contents material before, during, or after filling.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 69+, for apparatus for carrying out the processes of this subclass.
 82, for apparatus for heating or cooling contents material before, during or after filling.
- SEE OR SEARCH CLASS:
 53, Package Making, subclass 428 for processes which in addition to the material of Class 141 include additional steps pertaining to the manufacture of either the contents or the receiver.
 426, Food or Edible Material: Processes, Compositions, and Products, subclasses 392+ for packaging processes involving the treatment of food.

- 12** This subclass is indented under subclass 11. Processes in which the treatment involved increases the density of the charge within the receiver.
- (1) Note. The steps which result in compacting must be other than or in addition to the compacting effect of certain discharge assistants, the operation of which may or may not compact the material according to the nature of the material.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 73+, for apparatus for compacting material in the receiver, and subclass 81 for discharge assistants of the trap type which compact the charge after it has been separated from the main supply.
- SEE OR SEARCH CLASS:
- 53, Package Making, subclass 436 for processes of packaging with compacting which involve in addition to the steps of Class 141 additional steps relating either to the manufacture of the contents or the manufacture or closing of the receiver.
- 13** This subclass is indented under the class definition. Apparatus in which a method of operation, characteristic of the filling of a single receiver or several receivers, is modified during the opening or closing period of operation of the mechanism for the purpose of allowing coordination of operations some of which may be delayed proportionally to others at such periods of beginning and ending operation of the mechanism.
- (1) Note. Such factors as those essential to the operation of the machine as a supply of contents material or of receivers are not considered to be modifying factors.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 139, 153, for automatic control of the operation of successive receptacle type fillers by contents material.
- 140+, for interrupted or irregular cycle of operation involving no can-no fill devices.
- 155, for safety stops in successive type receptacle fillers.
- 156+, for filling systems involving successive receivers where filling is triggered by the receiver.
- 14** This subclass is indented under the class definition. Apparatus comprising means for filling or refilling bottles of the pressure fluid discharge type.
- (1) Note. For classification in this subclass more than a mere reference to apparatus for use for a siphon bottle filling is required, e.g., a claimed support or guide means for the siphon bottle, combined siphon bottle valve operator and bottle holding arrangement, interacting fill valve and dispenser operators, or siphon bottle dispensing nozzle and means to press the said nozzle to a filling pipe.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 18+, for other apparatus for filling or refilling dispensers, especially subclass 20 for apparatus for filling aerosol dispensers, which are distinguished by the fact that the propellant is supplied in liquid form, the device usually not being refillable.
- 15** This subclass is indented under subclass 14. Devices in which the bottle is provided with a filling opening which is distinct from its dispensing opening.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 325+, for receivers with plural openings.
- 16** This subclass is indented under subclass 14. Apparatus having plural filling means either at the same or different locations or wherein there is provided means whereby different charges or substances may be delivered to the bottle.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 100+, for other filling apparatus involving plural materials, material supplies or charges in a receiver.
- 234+, for apparatus including plural filling heads.

- 17** This subclass is indented under subclass 14. Apparatus including means for handling (e.g., piercing), or supporting a separable gas supply cartridge.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 19, for filling dispensers with gas from a gas pressure cartridge including a cutter or punch.
- 329, for filling means requiring puncturing type connections.
- SEE OR SEARCH CLASS:
- 261, Gas and Liquid Contact Apparatus, subclasses 119+ for liquids contained in receptacles in contact with gases.
- 18** This subclass is indented under the class definition. Apparatus defining a source of supply and filling means claimed in combination with a receiver having some characteristic recognized as a dispenser, or claimed as having features of utility only in connection with receivers of the dispensing type.
- (1) Note. For classification in this subclass there must be claimed a receiver with some dispensing part which cooperates with the filling means or there must be dispenser structure (other than force-producing means confined to a fountain applicator) claimed, the reverse operation of which assists in the filling thereof.
- (2) Note. This subclass and those indented thereunder may define the characteristics of the receiver-dispenser and not necessarily the supply means.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 2+, for methods relating to the filling of dispensers.
- SEE OR SEARCH CLASS:
- 222, Dispensing, subclasses 149+ for cleaners where provided which may extend through the dispenser outlet nozzle.
- 401, Coating Implements With Material Supply, subclass 119 for the combination of (a) a source of supply and filling means with (b) an applicator with material supply (e.g., fountain pen), in which combination means to produce force to move coating material from the source of supply to the applicator is either entirely absent or is present in the applicator only.
- 19** This subclass is indented under subclass 18. Apparatus including a piercing or penetrating means for cooperation with a gas capsule.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 329+, for filling means with receiver coating means requiring a puncturing type connection, and see the search notes thereto.
- SEE OR SEARCH CLASS:
- 169, Fire Extinguishers, subclasses 85+ for portable fire extinguishers involving gas pressure discharge.
- 222, Dispensing, subclass 5 for gas or vapor dispersers including a cutter or punch.
- 239, Fluid Sprinkling, Spraying, and Diffusing, subclass 271 and 309 for piercing means combined with a nozzle apparatus for discharging fluids, and other appropriate subclasses, especially subclasses 337+ and 398+ for apparatus which sprays one fluid by the pressure differential caused by the flow of another.
- 261, Gas and Liquid Contact Apparatus, subclasses 121+ for gas and liquid contact apparatus involving cutter or punch.
- 20** This subclass is indented under subclass 18. Apparatus in which the dispenser is of the aerosol type, i.e., the material to be dispensed is dissolved and/or carried by a vaporizing propellant which forms the charge of the dispensing container.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 3, for processes involving the filling of aerosol type dispensers, and see the search notes thereto.
- 14+, for apparatus for filling or refilling siphon bottles with gas.

SEE OR SEARCH CLASS:

- 239, Fluid Sprinkling, Spraying, and Diffusing, appropriate subclasses, especially subclasses 337+ and 398+ for apparatus which sprays one fluid by the pressure differential caused by the flow of another.

- 20.5** This subclass is indented under subclass 18. Apparatus in which the receiver dispenser is a manually manipulated device (e.g., fountain pen) used for applying or spreading a coating material on a work surface by contact therewith, and in which the source of supply includes means, other than or in addition to that inducing gravity or capillary flow, for producing a force to move the material from the source to the dispenser.

SEE OR SEARCH CLASS:

- 15, Brushing, Scrubbing, and General Cleaning, subclass 257.072 for the subcombination of a source of supply, which source includes resilient means, adapted to be actuated by a coating implement, for producing a force on the coating material to move the material from a supply zone to a coating-implement-receiving-and-loading zone; and see (1) Note thereto for the distinction between the subject matter of that subclass and that of Class 222, Dispensing.
- 222, Dispensing, subclasses 576+ for a dispensing inkwell; i.e., one which includes a trap chamber from which ink is removed by contact with the pen point of a pen.
- 401, Coating Implements With Material Supply, subclasses 118+ for the combination of a supply source and a coating receiver which is an independent applicator, in which combination material-moving force-producing

means is either entirely absent or is present in the receiver only.

- 21** This subclass is indented under subclass 18. Apparatus which cooperates in some way with the dispenser being filled, some part or parts of the dispenser, ordinarily relied upon for separating a portion of the material from the supply, being operated or manipulated to accomplish the filling operation.

- 22** This subclass is indented under subclass 21. Devices in which the dispenser is characterized as a closing or capping means removably associated with the supply container of which it is a part.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 322, for combined supply closures and traps which are manually coupled to the supply container and thereafter filled by inverting the resulting organization.

SEE OR SEARCH CLASS:

- 73, Measuring and Testing, subclasses 864.01+ for a pipette, per se.

- 23** This subclass is indented under subclass 22. Devices in which the dispenser is characterized by a means capable of establishing a volumetric change effective to control dispensing.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 206+ for resilient wall dispensers, per se, and see the search notes to subclass 206 for additional search fields.

- 24** This subclass is indented under subclass 23. Devices having one or more walls or portions thereof which may be distorted or deflected by application of a force and which return to their original position when the force is removed.

- 25** This subclass is indented under subclass 21. Devices in which the means causing or controlling dispensing comprises a volumetric change affecting means or comprises some nonsolid means for exerting a force upon the materials to be dispensed.

- 26** This subclass is indented under subclass 25. Dispensers in which the volumetric change effecting means is attached to the dispenser.
- 27** This subclass is indented under subclass 25. Devices in which the volumetric change effecting means comprises a follower, i.e., some solid means for exerting a force directly upon all the contents material to move it toward and through the dispensing opening.
- 28** This subclass is indented under subclass 25. Devices in which the fluid pressure applying or controlling means is a jet pump which is attached to the dispenser.
- 29** This subclass is indented under subclass 18. Dispensers comprising means defining a cover or cap for the supply source container and having a nondispersing outlet open to atmosphere, which is controlled by hand.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
22+, 322 and 381, for other closure type receivers mounted on the supply container.
- SEE OR SEARCH CLASS:
73, Measuring and Testing, subclasses 864.01+ for a pipette, per se.
- 31** This subclass is indented under the class definition. Apparatus in which the receiver has an inlet or an interior dimension of capillary size, i.e., so small that ordinary methods of filling as by gravity flow or forced feed will not suffice to introduce material thereinto.
- 32** This subclass is indented under the class definition. Apparatus for filling battery grids or electrodes with fluent material.
- (1) Note. This is an art collection of devices for applying or impressing Faure paste into battery grids.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
125, for apparatus for removing overfill by wiping, scraping or spatulating means.
- 280,** for apparatus in which a filled receiver is scraped or leveled by lateral relative movement of the supply means and the receiver.
- SEE OR SEARCH CLASS:
429, Chemistry: Electrical Current Producing Apparatus, Product, and Process, subclasses 209+ for electrodes having grid structure, especially subclasses 233+.
- 33** This subclass is indented under subclass 32. Apparatus in which the material applied to the opposite sides of the grid is derived from separate sources or separate conduits from the same source.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
100+, for other plural filling material types, especially subclass 102 for plural charges from the same source in a single receiver.
- 34** This subclass is indented under the class definition. Apparatus in which the filling operation involves the centrifugal distribution of materials either in the dispensing means whereby the material is distributed into receivers, or in the receiver itself whereby material in the receiver is distributed.
- (1) Note. The speed of the rotary movement must be sufficient to impel or distribute the material by a positive motion as by throwing or accelerating gravity flow.
- (2) Note. There must be an action on the contents material for at least a part of the filling or separating operations. The essence here is the resulting distribution of material in the receiver.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
283, for apparatus in which there is means to move the receiver in a rotary fashion during the filling operation or in connection therewith.

SEE OR SEARCH CLASS:

137, Fluid Handling, subclass 262 for distribution systems involving flow dividing compartments.

- 35** This subclass is indented under the class definition. Apparatus in which plural receivers are supplied with contents material at least a portion of which first enters one receiver and then is caused to flow to another receiver.

- 36** This subclass is indented under subclass 35. Apparatus in which a receiver adjacent the main filling station receives overflow from material which has passed through the first receiver, and is subsequently advanced to the main filling position for completion of its contents charge.

SEE OR SEARCH CLASS:

137, Fluid Handling, subclasses 571+ for fluid distribution systems comprising serially connected tanks.

- 37** This subclass is indented under the class definition. Apparatus comprising filling systems dealing with a plurality of contents materials, at least one of which is a gas, and which deal with the receiver gas content under conditions which must necessarily be other than atmospheric.

(1) Note. The provision of plural diverse paths for gaseous fluid between the receiver and either or both the supply or the atmosphere is considered without more to characterize a system of this type. The diverse paths may be either branched or noncommunicating.

(2) Note. The filling of an inverted receiver is included when the liquid content is displaced by gas and no confined flow path for the liquid is provided.

(3) Note. Included are:

(a)gas pumps, including siphon starting pumps for receiver air, liquid displacement by gas and evacuation means claimed broadly where liquid flow will not otherwise occur.

(b)gas storage, comprising either a supply separate from the other material supply, which gas supply is either connected directly to the receiver or is connected to a supply which is vented to the receiver, or storage of gas displaced from the receiver, including temporary confinement of such gas in a material-handling trap.

(c)plural or variable cycles in handling receiver gas content.

(d)plural diverse gas passages.

(e)use of the gaseous contents material as servo fluid or seal.

(f)automatic control of liquid flow by gas condition in receiver, but not including mere equilibrium states where a vent is closed.

(g)sequential operation of diverse valves only in apparatus having filling during lateral travel of registering head and receiver.

SEE OR SEARCH THIS CLASS, SUBCLASS:

4+, for processes relating to the filling of receivers under conditions or with steps which involve provision of a nonatmospheric or variations in the gaseous state in the receiver.

70, for material treatment with fluid contact, i.e., those devices where gas is introduced into an open container which is already filled, or in connection with the filling thereof.

91+, for treatment by fluid of the receiver or of the filling or dispensing apparatus, especially subclass 92 for gaseous pretreatment of the receiver, connection between which and the nongaseous supply apparatus is broken between the cleaning operation and the filling operation.

93, for suction hoods and off-takes for soil removal or preventing.

115+, for drip prevention or over-fill removal by evacuation or suction,

- especially subclass 127 for over fill removal in gas filled receivers.
- 285+, for multiple passage filling means or filling heads for diverse material or flows, and see the search notes to subclass 285.
- 323, for residual siphon type filling apparatus, and see the search notes thereto.

SEE OR SEARCH CLASS:

- 53, Package Making, subclasses 403+ for package making processes involving gas filling and/or evacuating and closing; subclass 432 for package making processes with contents material treating by vacuum or gas; subclasses 79+ for package making apparatus for gas filling and/or evacuating receptacle and closing; and subclass 510 for package making apparatus with contents material treating by vacuum or inert atmosphere.
- 137, Fluid Handling, subclasses 154+ for fluid handling pressure systems containing diverse fluids.
- 222, Dispensing, subclasses 394+ for dispensers with fluid pressure discharge assistants, and see the search notes to subclass 394.
- 38** This subclass is indented under subclass 37. Apparatus for filling tires.

- (1) Note. Included with patents claiming filling with both liquids and gas are those subcombinations relating to filling with one or the other but including such limitations as to restrict the utility of the subcombination to devices in which filling with the other of the two materials is a necessary accompaniment.
- (2) Note. Tire inflation with gas alone is not specifically provided for in this schedule but the patents relating to the combination with the source of supply of the inflating fluids have been distributed in appropriate subclasses according to the means for causing the connection to be made, the means for supporting one or the other of the supply and receiver elements in relation to the other and similar relationship provided for in this class.

- (3) Note. Tire or tube deflation accomplished by evacuation apparatus where other necessary characteristics of this class are present, are included in subclass 65.

SEE OR SEARCH CLASS:

- 137, Fluid Handling, subclasses 223+ for apparatus comprising valved inflation stems of the type attached to pneumatic tires and analogous inflatable articles, including filling and/or release extensions of such stems, valved filling chucks of the type attached to pressure fluid supplying conduits and employed to inflate such articles by means of the inflation stems, and combinations of such inflation stems and filling chucks, including the source of supply also when claimed by name only. See also the search notes under subclass 223.
- 222, Dispensing, subclasses 92+ for devices for deflating tubes by collapsing the walls thereof by applying force exertive means to the exterior portions of the tube.
- 425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclasses 44+ for reshaping, resizing or vulcanizing apparatus for a tire tube including means to apply fluid pressure directly thereto.

- 39** This subclass is indented under subclass 37. Apparatus in which the filling means for the nongaseous content material is controlled by or operates as the result of the establishment of a desired gas condition in the receiver.

- (1) Note. This includes equilibrium conditions as well as those in which there is a condition responsive means controlling the operation of the filling means provided that positive flow control means is included, such as valves or servo operated discharge assistants. Flow by barometric or vacuum influences is not sufficient to cause classification in this subclass, and equilibrium conditions in which the vent is closed by float or pressure are not included.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
197, for automatic control of filling in gas-filled receiver systems.
- SEE OR SEARCH CLASS:
137, Fluid Handling, subclasses 154+ for level control to vent gases or liquids from a fluent material handling system.
- 40** This subclass is indented under subclass 39. Apparatus in which the establishment of a desired gas condition in the receiver is controlled by the level of contents material other than the gas in the receiver.
- (1) Note. The apparatus here included does not necessarily predicate an air tight connection with the receiver, but rather requires a change in the gas condition in the receiver by some outside interference.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
192+, for automatic control of flow cut-off or diversion means responsive to the level of the contents material in a receiver.
- 41** This subclass is indented under subclass 40. Apparatus in which air is supplied to the receiver by an air pressure producing means external to the flow line which is supplying the other fluid material to the receiver.
- (1) Note. The air pressure producing means need not be claimed if the device will not operate without it.
- 42** This subclass is indented under subclass 41. Apparatus in which the system is additionally provided with a negative pressure line and a buoyant means which at some predetermined level of material in the receiver, effectively disconnects the said negative pressure line.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
303, for multiple passage filling means for diverse materials or flows having a float operated vent cut-off.
- 43** This subclass is indented under subclass 42. Apparatus in which the negative pressure supply means is effectively removed by opening the negative pressure to the ambient air.
- 44** This subclass is indented under subclass 37. Apparatus in which gas and other material are flowing together, usually as a result of overflow from a filled receiver, and a passage or chamber is provided in which the gas is separated from the other material.
- (1) Note. A mere enlargement of a vent passage, whether for overflow material or not, is not included. Other features characteristic of diverse fluid systems must be present, as filters, gas separating baffles, pressure equalizing means or pumps, separate outlets for gas and liquid, etc.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
86+, for drip collecting in filling systems.
307+, for nonpressure type vents having a trap or chamber therein. See (1) Note.
- SEE OR SEARCH CLASS:
137, Fluid Handling, subclasses 171+ for fluid separating traps or vents in fluid handling systems of general utility, and see the search notes to subclass 171.
- 45** This subclass is indented under subclass 44. Apparatus in which the separated nongaseous material is returned to the supply.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
290, for multiple passage filling heads having a flue or vent externally returning to the supply.
- 46** This subclass is indented under subclass 37. Apparatus in which the same gas or source of gas which comprises one of the diverse fluids is used in the apparatus to seal joints or to operate valves or other moving parts of the system.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
287, for multiple passage filling head having a gas expanded seal.

- 347, for interlocked apparatus components responsive to material flow, the material being in some instances a gas.
- SEE OR SEARCH CLASS:
- 137, Fluid Handling, subclasses 171+ for separate outlets for one of plural diverse fluids controlled by the presence of the other in fluid handling systems of general utility.
- 222, Dispensing, subclass 129.2 for dispensing systems in which dispensed one fluid operates dispensing means for another.
- 47** This subclass is indented under subclass 37. Apparatus in which plural gas flows to or from the receiver occur other than or in addition to the displacement of gas from the receiver by the nongas material, or the control of a single gas flow to or from the receiver is operated during the cycle of filling the receiver in some way other than by merely turning it on and/or off. The special operation may involve repeating any gas control operation, changing pressure or quantity, shifting the gas supply to another use, or changing sources during the filling operation.
- (1) Note. Manual operation of the gas control apparatus is not included even though the sole disclosure is that repeated operations for the same receiver occur.
- (2) Note. Apparatus which during the cycle changes the gas condition to change the equilibrium requirements of the system is included.
- 48** This subclass is indented under subclass 47. Apparatus in which the gas cycle which is characteristic of this group is used to pretreat either the receiver or the contents material.
- (1) Note. This cycle is distinguished from mere counter pressure or vacuum application to establish a condition in the receiver by the fact that some step intervenes which either changes the gas condition or replaces one gas with another prior to the filling operation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 63+, for gas pretreatment of receiver or contents material without special control of gas etc. as required by subclass 47.
- 92, for fluid pretreatment of a receiver where pressure conditions are not maintained between the pretreatment and the filling operation.
- 49** This subclass is indented under subclass 47. Apparatus in which a gassing and filling cycle is repeated during the filling of one receiver.
- (1) Note. Manual operation of the control means is not included even though the sole disclosure is of repeated operations in filling a receiver.
- 50** This subclass is indented under subclass 47. Apparatus in which a source of pressure, either positive or negative, is shifted from one use such as pressurizing or evacuating a receiver to another flow line which is a vent or fill pipe, usually for the purpose of emptying such pipe.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 55, for a vent to drain a fill pipe in diverse fluid filling systems.
- 51** This subclass is indented under subclass 37. Apparatus in which a pressure tight housing is provided for the receiver and means is provided to control the gas condition within said housing.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 390, for miscellaneous external forms or protectors for receivers, and see the search notes thereto.
- SEE OR SEARCH CLASS:
- 53, Package Making, subclasses 86+ for package making apparatus having gas filling and/or evacuating of the package within an enclosure.
- 52** This subclass is indented under subclass 37. Apparatus in which the (1) Note. The stored gas may be disposed of at the end of each fill-

ing cycle, as to atmosphere, to the supply or to the next receiver. It may also be stored in the succeeding receiver during the filling cycle. system includes a chamber for storing the gas displaced from the receiver.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

35+, for apparatus which transfers overflow nongaseous material to a succeeding receiver.

- 53** This subclass is indented under subclass 52. Apparatus in which the pressure in the receiver is relieved to a material handling trap for the contents material.

SEE OR SEARCH CLASS:

222, Dispensing, subclass 332 for discharge assistant type dispensers with vent passage for movable trap chamber and subclass 442 for dispensers having a stationary trap with a vent passage.

- 54** This subclass is indented under subclass 37. Apparatus in which the filling head comprises plural diverse gas passages.

(1) Note. The diverse passages are provided for incoming or outgoing gases or for gases supplied at different times or for different purposes.

(2) Note. The gas passages may be either branched or noncommunicating.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

285+, for filling means or heads having multiple passages, one of which usually comprises a vent which provides for the passage of gaseous material to or from a receiver being filled under atmospheric pressure conditions or conditions indistinguishable from such. Sequential operation of the valves for gas and nongas materials is not considered significant except in lateral travel filling assemblies.

- 55** This subclass is indented under subclass 54. Apparatus in which one of the passages comprises a vent allowing the filled pipe to be

drained of material at the termination of the filling operation.

(1) Note. A pressure other than atmospheric may be connected to the vent provided no change is made in another line carrying such pressure.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

50, for diverse fluid systems in which a gas supply is shifted to the fill pipe at some time during a receiver filling cycle.

SEE OR SEARCH CLASS:

137, Fluid Handling, subclass 589 for vented outlet flow lines in fluid handling systems of general utility.

- 56** This subclass is indented under subclass 54. Apparatus comprising three or more diverse gas passages in the filling apparatus head.

- 57** This subclass is indented under subclass 54. Apparatus in which the receiver is vented to atmosphere before it is separated from the filling head.

(1) Note. This is to assist in removing the receiver from a vacuum head or to prevent surge of material under pressure in the receiver when the connection with the head is broken.

- 58** This subclass is indented under subclass 57. Apparatus in which the vent to atmosphere remains open continuously during the operation of the apparatus.

SEE OR SEARCH CLASS:

137, Fluid Handling, subclasses 513.3+ for valves having a bleed or continuously open passage.

- 59** This subclass is indented under subclass 37. Apparatus in which means for removing the gaseous contents of the receiver is combined with or comprises means for filling the receiver with a nongaseous material.

(1) Note. Apparatus claiming evacuation means broadly is included if a cyclically operating machine having no other

means for transferring the nongaseous material is claimed.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 7, for corresponding processes.
- 42+, for vacuum line cut-off by a float in a filled receiver.
- 65, for evacuation apparatus, per se.
- 66, for evacuating and filling with gas.

SEE OR SEARCH CLASS:

- 53, Package Making, subclass 510 for packaging apparatus having contents material treatment involving vacuum or inert atmosphere.
- 137, Fluid Handling, subclass 205 for fluent material handling systems in which a chamber is filled by evacuation.

- 60** This subclass is indented under subclass 59. Apparatus in which the means for joining the receiver to the said apparatus includes a movable displacement means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 117, for means comprising an expanding chamber in a disengaged head to reverse the flow for drip prevention or overflow removal.

- 61** This subclass is indented under subclass 59. Apparatus in which the means for evacuating the receiver ceases to operate to increase the vacuum before the filling material is admitted to the receiver.

- 62** This subclass is indented under subclass 37. Apparatus in which registering head and receiver means have a lateral motion during the filling of the receiver.

- (1) Note. Filling systems having only one gas passage per filling head are included if they are of the successive receiver, lateral travel type, since different vents are in different stages of operation at any one time.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 135+, for filling systems having conveying means to supply successive receivers and having lateral motion of registering heads and receivers, and see the search notes to subclass 135.

- 63** This subclass is indented under subclass 37. Apparatus in which the gaseous component in the receiver is supplied as a treatment for the receiver or the contents thereof.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 48, for a separate gas cycle for a receiver pretreatment.
- 70, for contents material treatment by a gaseous fluid in a system which is not closed, and see the notes to subclass 70.

- 64** This subclass is indented under subclass 63. Apparatus in which the receiver has been filled with a nongaseous material prior to the gas treatment.

- (1) Note. The apparatus has features which lack utility except when the receiver is filled with nongaseous material, such as means for holding or compacting such material, or for mixing the gas with it, as by agitating or by injecting the gas below the surface of the contents.

SEE OR SEARCH CLASS:

- 53, Package Making, subclass 510 for package making devices having means for treating the contents material with vacuum or inert atmosphere.

- 65** This subclass is indented under the class definition. Apparatus in which gaseous content is removed from receivers, with or without subsequent refilling with another gaseous material.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 8, for corresponding processes.
- 59+, for such exhausting followed by filling the receiver with nongaseous material.

- 64, for evacuation of filled receivers when there is some adaption to the presence of nongaseous material in the receiver.
- and see the search notes to subclass 315 for other subclasses of an art character involving valve bags.
- 66** This subclass is indented under subclass 65. Apparatus in which the receptacle is filled with gas in connection with or subsequent to evacuation.
- 67** This subclass is indented under the class definition. Apparatus in which a fluent material is introduced into the receiver by means of an impeller or a fluid current conveyor.
- 68** This subclass is indented under subclass 67. Apparatus in which the receiver is a valve bag, i.e., a bag having an inlet in the folded corner thereof, the corner usually providing a self-closing valve when the bag is detached from the filling spout.
- 69** This subclass is indented under the class definition. Apparatus in which the material contents is subjected to a special operation not merely the incidental result of handling, usually for purposes of preserving or preparing it for handling or storage, but not amounting to operations for effecting permanent or irreversible changes in physical character such as are commonly called manufacturing.
- (1) Note. See the main class definition for lines.
- 70** This subclass is indented under subclass 69. Apparatus in which a receiver having a material content is supplied with a fluid which comes into contact with the material in the receiver.
- (1) Note. If the first material in the receiver is a gas, the treating material must be something other than air.
- 71** This subclass is indented under subclass 69. Apparatus in which the density of the fluent charge in the receiver is increased (1) by compacting or agitating within the receiver or (2) by increasing the density of the contents charge
- SEE OR SEARCH CLASS:**
- 53, Package Making, subclasses 79+ for gas filling and/or evacuating of receptacles with closing.
- 417, Pumps, appropriate subclasses for gas pumps, per se, and combined with a space being evacuated in a nonseparable system.
- 418, Rotary Expansible Chamber Devices, for rotary expansible chamber devices, per se.
- SEE OR SEARCH THIS CLASS, SUBCLASS:**
- 11+, for corresponding processes.
- 48, for pretreatment of material by gas in a diverse fluid containing pressure system.
- SEE OR SEARCH CLASS:**
- 53, Package Making, subclasses 111+ for packaging with contents material treating, the added operation in that class being sometimes a manufacturing step.
- SEE OR SEARCH THIS CLASS, SUBCLASS:**
- 37+, for such devices operating in a closed system in which the gaseous condition in the receiver is affected by the operation.
- SEE OR SEARCH CLASS:**
- 198, Conveyors: Power-Driven, subclasses 638+ for power driven conveyors of the thrower type.
- 406, Conveyors: Fluid Current, appropriate subclasses for fluid current conveyors for solid materials.
- SEE OR SEARCH THIS CLASS, SUBCLASS:**
- 315, for valve bag clamps or chairs comprising a filling means system with receiver or receiver coacting means,

after it has been separated from the supply, the material being confined until it enters the receiver.

- (1) Note. Deaerating of fluent materials is considered a compacting operation.
- (2) Note. The many discharge assistants and agitating type dispensers which inevitably produce a compaction of loose material as an incident to handling have not been made a basis for classification in this class but have been cross referenced to appropriate subclasses in Class 222, Dispensing.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

12, for corresponding processes.

SEE OR SEARCH CLASS:

- 34, Drying and Gas or Vapor Contact With Solids, appropriate subclasses for degasifying or denuding means for fluent solids.
- 53, Package Making, subclasses 523+ for package making involving compacting contents material.

- 72** This subclass is indented under subclass 71. Apparatus in which compacting is accomplished by agitation, jarring or vibration of the receiver and parts of the supply apparatus associated therewith.

SEE OR SEARCH CLASS:

- 222, Dispensing, appropriate subclasses, especially 226+ for dispensers having agitating means combined with discharge assistants and subclasses 251+ for other agitating means of a dispensing type and material handling devices such as conveyors, pumps, ejectors, and movable trap chambers, etc.

- 73** This subclass is indented under subclass 71. Apparatus in which the density of the material is increased by treatment within the receiver.

- (1) Note. Included in this subclass is a collection of packing augers, per se.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

193+, and 251+, for filling systems having relatively receding discharge assistant and receiver engaging means, the said relative movement taking place during the filling operation, which is sometimes referred to as "uniform density" filling.

SEE OR SEARCH CLASS:

100, Presses, appropriate subclasses for means compacting contents material in a filled receiver.

- 74** This subclass is indented under subclass 73. Apparatus in which the density is increased by jarring or vibrating or otherwise agitating the material in the receiver.

SEE OR SEARCH CLASS:

366, Agitating, subclasses 108+ and 208+ for jarring and vibrating means for mixing chambers of general utility.

- 75** This subclass is indented under subclass 74. Apparatus in which the receiver is supported mainly by means engaging the top or sides thereof.

- (1) Note. An additional support may be provided at the bottom, as in the case of valve bag chairs.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

314+, for filling means having bag or liner securing means, and see the search notes to subclasses 314 and 315 for miscellaneous bag supports and valve bag supports respectively.

- 76** This subclass is indented under subclass 75. Apparatus in which the bag is supported on a chair as well as on a bag supporting nozzle, the agitation being supplied through the chair.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

315, for valve bag clamps or chairs associated with filling means and see the search notes to subclass 315 for other

subclasses of an art nature pertaining to valve bag filling.

- 77** This subclass is indented under subclass 74. Apparatus in which the agitation is provided by, or involves, distortion of or blows or jarring imparted to the receiver side walls.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

114, for material filling systems which necessarily involve deformation or yielding of receiver walls.

- 78** This subclass is indented under subclass 74. Apparatus in which the means for jarring or vibrating the receiver and its contents is carried by or coacts with the conveying means for the receiver.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

129+, for filling systems having conveying means to supply successive receivers.
250+, for filling systems having means to move the receiver to, from or during flow relation.

- 79** This subclass is indented under subclass 78. Apparatus in which the conveyor is a rotary type.

- 80** This subclass is indented under subclass 73. Apparatus in which the compacting takes place in a receiver which has previously been completely filled.

SEE OR SEARCH CLASS:

100, Presses, appropriate subclasses for means compacting contents material in a filled receiver not combined with filling means for the receiver or means coacting therewith.

- 81** This subclass is indented under subclass 71. Apparatus in which the material is supplied to the receiver in charge form, the charge having been compacted in a dispensing type trap after separation from the source and handled subsequently under continuously confined conditions.

(1) Note. Charge forming requires that the charges thus formed travel as a body

without relative flow (except by friction) among the particles after the charge has been formed.

SEE OR SEARCH CLASS:

53, Package Making, subclasses 523+ for package making involving a compacted charge which is handled as an article subsequent to compaction, i.e., without being continuously confined.

- 82** This subclass is indented under subclass 69. Apparatus in which the contents material is subjected to a treatment which either raises or lowers its temperature.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

11, for corresponding processes.

SEE OR SEARCH CLASS:

53, Package Making, subclass 127 for package making devices involving contents material treating by heating or cooling.
222, Dispensing, subclasses 146+ for dispensers having heating or cooling means, and see the search notes to subclass 146 for other search classes on heating and cooling subject matter.

- 83** This subclass is indented under the class definition. Apparatus having means for testing contents material, for determining the amount of the contents material in the receiver by weighing or means for determining whether or not the proper amount of material has been placed in the receiver.

SEE OR SEARCH CLASS:

177, Weighing Scales, subclasses 52+ for receivers successively handled relative to a weigher, subclass 59 for a weigher correlated with a receiver, and subclasses 60+ for weigher responsive material control comprising supplying, filling, removing material from the weigher or removing a receiver from filling-weighing position.
222, Dispensing, subclass 77 for dispensers involving weighing features and see the search notes to that subclass

for miscellaneous material handling type involving weighing.

- 84** This subclass is indented under the class definition. Apparatus which can by an adjustment, addition, removal or reassembly of one of more of its parts be caused to serve as one of two or more distinctly different filling devices having a different mode of operation or adapted to handle different contents or different receivers requiring changes in the modes of handling or operation.

- (1) Note. Mere adjustability or rearrangement of the apparatus to accommodate receivers of different size even though involving a rearrangement of the apparatus is not here if the mode of operation of the apparatus remains unchanged.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

378+, for adjustable supports for receivers, and see the search notes to subclass 378.

SEE OR SEARCH CLASS:

53, Package Making, subclass 201 for convertible package making devices.
222, Dispensing, subclasses 282+ for variable volume dispensers.

- 85** This subclass is indented under the class definition. Apparatus comprising fluent material filling systems having means not directed to filling receivers for applying or removing fluent material to or from parts of the system. The material may be contents material which has escaped from the system or it may be an added material for coating, lubricating, sterilizing or drying the system parts. If the material is contents material, it may be removed from the system where it constitutes a soiling or contaminating agent or it may be prevented from reaching parts of the system to soil or contaminate them after it has escaped from its normal confined path or failed to enter the intended receiver.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

115+, for drip prevention by flow reversing and for overflow removal.

SEE OR SEARCH CLASS:

137, Fluid Handling, subclasses 237+ for fluid handling systems having installed cleaning means and see the search notes to that group of subclasses for related art in other classes.

- 86** This subclass is indented under subclass 85. Apparatus in which means is provided to catch or otherwise dispose of or direct material dripping, leaking or being discharged as waste material.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

106, and 364, for draining means supporting supply containers previously emptied by other operations.
158, for filling systems of the successive receiver type in which a charge is disposed of by special means when the intended receiver is not available.

SEE OR SEARCH CLASS:

137, Fluid Handling, subclasses 312+ for fluid handling systems with leakage or drip collecting features.
222, Dispensing, subclasses 108+ for fluent material dispensers having drip collectors and see the search notes to that subclass for additional fields of search.

- 87** This subclass is indented under subclass 86. Apparatus in which the means for receiving the drip is movable from a position beneath the supply outlet where it will receive the prospective discharge or drip to a position where it will not interfere with the presentation of a receiver or to a position where it is disabled.

- 88** This subclass is indented under subclass 86. Apparatus in which the drip collector is supported by or located in a definite relation adjacent the receiver support.

- 89** This subclass is indented under subclass 85. Apparatus in which a wiper or applicator comes into contact with parts of the system or a fluid blast impinges on the system for the purpose of removing foreign material or applying a noncontents material.

SEE OR SEARCH CLASS:

- 137, Fluid Handling, subclasses 238+ for cleaning or steam sterilizing installation in fluid handling systems.
- 222, Dispensing, subclasses 148+ for cleaning means in fluent material dispensers, and see the search notes to subclass 148.

- 90** This subclass is indented under subclass 89. Apparatus in which the system treating means comprises means operating on the outlet of the supply means in the area where it comes in to close relation with the receiver.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 149+ for dispenser cleaners operating through the dispenser outlet.

- 91** This subclass is indented under subclass 89. Apparatus in which the treatment is effected by the application of a blast or stream of fluid either gaseous or liquid.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 37+, for closed systems in which a treating fluid is one of diverse fluids in a receiver.
- 70, for treatment of receiver contents by contact with a fluid.

- 92** This subclass is indented under subclass 91. Apparatus in which a receiver is treated by fluid prior to filling.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 48, and 63, for gaseous or liquid pretreatment of a receiver in connection with filling a receiver with diverse materials in a closed system.

SEE OR SEARCH CLASS:

- 53, Package Making, subclass 141 for packaging machines providing fugitive pretreatment of cover material.

- 93** This subclass is indented under subclass 85. Apparatus in which dust, soil, fumes or escaped contents are removed from the filling

area by means of passages or enclosures subjected to negative pressure.

SEE OR SEARCH CLASS:

- 53, Package Making, subclass 167 for suction hoods and off-takes in connection with package making of that class.
- 144, Woodworking subclass 252 for a suction hood or off-take in connection with woodworking machinery and see the search notes to that subclass.

- 94** This subclass is indented under the class definition. Apparatus having signals, indicators, registers, recorders, gauges or display devices for indicating a condition or performing a measuring function, such devices consisting of relatively movable, changeable or audible information giving parts, or having means permitting inspection of the contents of the system.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 83, for devices for testing or weighing the receiver contents.

SEE OR SEARCH CLASS:

- 53, Package Making, subclasses 507+ for packaging apparatus having alarms, signals, indicators, inspection means or counters.
- 137, Fluid Handling, subclasses 551+ for fluid handling systems with indicator, register, recorder, alarms or inspection means.
- 222, Dispensing, subclasses 23+ for dispensers with recorder, register, indicator, signal or exhibitor, subclasses 54+ for dispensers having inspection means. See the search notes to subclass 23 and 154 of that class.
- 340, Communications: Electrical, subclasses 500+ for electrical automatic condition responsive indicating system.

- 95** This subclass is indented under subclass 94. Apparatus in which the information conveyed is in connection with the level or pressure of the receiver contents.

SEE OR SEARCH CLASS:

- 137, Fluid Handling, subclass 557 and 558, for fluid pressure and liquid level responsive indicators, recorders or alarms.
- 222, Dispensing, subclass 40 for flow or overflow indicators and subclass 51 for float level indicators.
- 340, Communications: Electrical, subclasses 612 through 626 for electrical automatic fluent material level or pressure responsive indicating systems.

96 This subclass is indented under subclass 95. Apparatus in which the level or pressure indicating means is mounted on the outlet portion of the supply means, as on a hose nozzle or faucet.

97 This subclass is indented under the class definition. Apparatus provided with means surrounding or adjacent to the operating area of the machine for protecting a person standing nearby from splashing or injury from escaping material or broken parts.

- (1) Note. An enclosure for the receiver in the nature of a housing is not regarded as a guard or screen for the operator even though composed of mesh material.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 51, for housings for receivers in diverse fluid containing pressure systems.
- 390, for external forms or protectors for receivers and see the search notes to that subclass.

98 This subclass is indented under the class definition. Apparatus having means associated therewith for performing some function in addition to or in perfecting the basic operation of transferring material from a supply to a receiver and not provided for in the preceding subclasses.

- (1) Note. Filling systems comprise the containers, flow lines and receivers in which the contents material is confined at any time during the operation, means supporting either or both the supply con-

tainer and the receiver before, during or after the filling operation, and the flow controlling means for the contents material including valves and flow restrictors, screens being included as flow restrictors.

- (2) Note. Included are, for example, filling systems combined with illumination, display means for signs or merchandise, labeling or printing; static electricity or heat conducting means; holders for tools, nonsystem devices or adjuncts or removed system parts other than the normally separable components; tools or punches not a part of the flow system; system parts usable as tools; ventilating; lubricating; agitating for purposes other than compacting material in the receiver; sorting; installed systems.

SEE OR SEARCH CLASS:

- 53, Package Making, subclass 167 for miscellaneous combined features of that class.
- 137, Fluid Handling, subclass 560 for miscellaneous combined features of fluid handling systems generally.
- 222, Dispensing, subclass 192 for combined features connected with dispensers, and see (1) Note for a definition of supply container structure and features considered to be characteristic of dispensing and accordingly of the supply means of Class 141.

99 This subclass is indented under the class definition. Apparatus in which two or more concurrent series of filling operations involving successive receivers are carried out, the operation in the separate series being diverse as to some characteristic.

- (1) Note. Features establishing dissimilarity of the series or lines may comprise alternate filling operations in different lines, use of one line as a control or test line for the others, lines of different lengths or container spacing as successive concentric circle on a turret, or any other deviation from mere duplication of filling operations as to material supply and receiver handling.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 178+, for filling successive groups of receivers as in trays or crates.
- 186, for plural lines of successively supplied receivers or plural filling stations.
- 234, for plural filling heads.

SEE OR SEARCH CLASS:

- 53, Package Making, subclass 168 for packaging machinery having selective or alternate supply of plural covers and/or plural contents, subclass 202 for plural lines packaging.

100 This subclass is indented under the class definition. Apparatus in which the contents material is derived from plural sources or is comprised of two or more diverse materials, or is placed in the receiver in multiple charges from different charging heads or is placed in the receiver in multiple charges from the same head, not however resulting merely from the inherent intermittent flow caused by the nature of the discharge assistant or flow controller.

- (1) Note. For inclusion in this subclass plural material supplies must be entirely distinct when stored as bulk. Material derived from these supplies may be used concurrently, successively or alternately.
- (2) Note. Compartmented receivers for which separate charges are provided are included if the receiver is claimed or special features are present.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 9, for corresponding processes.
- 37+, for filling with diverse materials in a closed system.
- 99, for multiple filling lines of diverse characteristics.
- 178+, for successive receiver systems for plural receivers in crates or trays.
- 186, for plural lines or stations in filling systems having means to supply successive receivers.
- 234+, for plural filling heads, and see (1) Note in the definition of subclass 234 for the line. See also (2) Note above.

SEE OR SEARCH CLASS:

- 53, Package Making, subclass 202 for plural line packaging; 237+ for plural filling stations or contents sources for a single package; subclass 246 for successive deposits in a compartmented receptacle; subclass 263 for packaging machines which arrange material in receivers by means of dividers.
- 137, Fluid Handling, subclasses 255+ for plural tanks having parallel flow relation in fluid handling systems.
- 222, Dispensing, subclasses 129+ for plural sources in dispensing devices.

101 This subclass is indented under subclass 100. Apparatus in which the unit comprising a filling means outlet and a receiver move together during flow relation in a direction transverse to the direction in which the filling means and receiver move into filling relation.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 135, for such lateral motion devices with means to supply successive receivers, and see the search notes to subclass 135.

102 This subclass is indented under subclass 100. Apparatus in which a single receiver is supplied with multiple charges of the same material from the same source.

- (1) Note. Filling systems having a discharge assistant type dispenser which normally operate to deposit plural increments of material as a single charge, as expansible chamber pumps or rotors with plural traps have been classified in later subclasses on the basis of the filling relation and cross-referenced into Class 222 if appropriate to the dispenser disclosed or claimed.

103 This subclass is indented under subclass 100. Apparatus in which a single receiver is supplied with plural material charges at separate points of deposit.

- 104** This subclass is indented under subclass 100. Apparatus in which multiple material supplies are provided, with means whereby a desired one of the sources may be used for filling a given receiver.

SEE OR SEARCH CLASS:

- 53, Package Making, subclass 168 for packaging devices having selective supply of one of plural contents.
222, Dispensing, subclass 144.5 for dispensers comprising plural sources of materials with selecting means for one desired source.

- 105** This subclass is indented under subclass 100. Apparatus in which materials from two or more sources pass into the receiver through a common flow line.

SEE OR SEARCH CLASS:

- 137, Fluid Handling, subclasses 602+ for fluid distribution systems having multiple inlet with a single outlet.
222, Dispensing, subclasses 145.1+ for plural source dispensers having common discharge outlet for the plural sources.

- 106** This subclass is indented under subclass 105. Apparatus having means for holding supply containers in inverted position, the containers being of the type which has no discharge assistant and in which emptying is completed by one outflow.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 364, for means for dumping and/or draining single receivers.
375, for supports for supply containers which are removable from the filling head through which they discharge their contents into a receiver.

- 107** This subclass is indented under subclass 105. Apparatus in which at least one of the materials which forms the charge is delivered to a measuring trap and the second material is either added to the first in the trap or follows it through the trap.

SEE OR SEARCH CLASS:

- 137, Fluid Handling, subclasses 888+ and 896+ for fluid distribution systems having multiple inlets and a single outlet with means for positively mingling the materials in the course of their flow.
222, Dispensing, subclass 133 for dispensers of this type.
366, Agitating, appropriate subclasses for material mixing and agitating means of general utility.

- 108** This subclass is indented under the class definition. Apparatus in which the filling means is a material handler or confining means designed to be filled by being thrust into a supply of fluent material and to be manipulated to discharge the material so picked up into a receiver which is attached to and carried by or otherwise associated with the filler.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 319+, for receiver and supply means which are manually coupled and inverted.
328, for supply means which provides a manually engageable handle for the receiver when associated therewith.
380+, for dispensers comprising material supply and handling means or receptacles which are associated in nonuse relation, so that the means or receptacle, which may comprise a scoop or cup, must be separated from the supply before it can be filled.

SEE OR SEARCH CLASS:

- 294, Handling: Hand and Hoist-Line Implements, subclasses 27+ and other appropriate subclasses for receptacle holders having handles thereon, and subclass 55 for scoops, per se.
425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclasses 276+ for a scoop type shaping means arranged to be filled by being thrust into a bulk source (e.g., ice cream disher, etc.).

- 109** This subclass is indented under subclass 108. Apparatus in which the receiver is associated with the scoop by being placed therein so that

- the material picked up by the scoop is at the same time deposited within the receiver.
- 110** This subclass is indented under the class definition. Apparatus in which (1) the material transfer from the supply to the receiver is effected by a wick or other absorbent material which is located either in the receiver or in the supply at the point of transfer of the material from one to the other, or (2) the receiver has its inlet partly submerged below the surface of the supply at some period in the operation of filling so that all or part of the charge flows into the receiver by gravity.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 319+, for apparatus in which the dispenser and receiver are manually coupled and the system inverted for filling.
- SEE OR SEARCH CLASS:
- 134, Cleaning and Liquid Contact With Solids, subclasses 137+ for means to move work through liquid contact or cleaning apparatus.
- 222, Dispensing, subclass 187 for dispensers utilizing a wick or absorbent feed, and see the search notes to that subclass for additional search field.
- 401, Coating Implements With Material Supply, subclasses 118+ for a container for a supply of coating material in combination with a separable applicator which transports the material from the container and applies it to a work surface by contact therewith; and see section IV, "Search Class", in the definition of this class (141) for the line with Class 401.
- 111** This subclass is indented under subclass 110. Apparatus having means for moving the receiver into, during or out of filling relations. The receiver supply may or may not be of the successive receiver type.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 129+, for filling systems having conveying means to supply successive receivers.
- 250+, for filling systems with means to move the receiver to, from or during flow relation.
- 112** This subclass is indented under subclass 110. Apparatus in which the receiver is secured to a closure for a supply chamber and is stored in immersed (i.e., filling) position between operations.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 108+, for scoop type filler with associated receiver.
- 322, for manually coupled and inverted supply and receiver means wherein the receiver is combined with the supply closure means.
- 358, for receiver operated discharge means of the scoop or drawer type.
- SEE OR SEARCH CLASS:
- 401, Coating Implements With Material Supply, subclasses 126+ for containers for a supply of coating material in combination with a separable applicator-and-closure unit which transports the material to and applies it on a work surface; and see the "Search Class" note in section IV of the definition of this class (141) for the line with Class 401.
- 113** This subclass is indented under the class definition. Apparatus in which the flow of contents material into the receiver is in an upward direction and in which the system includes support means for the receiver in filling relation. The receiver may be filled through an aperture at its bottom or it may be inverted for filling.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 18+, for filling or refilling of dispensers, especially subclass 30 for fountain pen type filling arrangements.
- 108+, for scoop type in which the receiver may be supported in inverted position.
- 163, for successive receiver type filling systems in which the conveyor rotates on a horizontal axis so that the receiver may be inverted at some time during the filling cycle though not necessarily so.
- 164, for successive receiver type filling systems in which the receiver is supported on its side during filling.

274, for gravity sealed valves operative upon inversion of the receiver and including a swinging support for the receiver.

325+, for filling means for receivers having plural openings, especially subclass 124 for receivers opened at both ends.

SEE OR SEARCH CLASS:

53, Package Making, subclasses 242+ for package making devices of the bottom filling type.

114 This subclass is indented under the class definition. Apparatus in which some portion of the mechanism is useful only and thereby requires in its normal operation that the walls of the dispenser or receiver be distortable or capable of being pushed out of one position into another except as a mere incident to affixing the receiver to the filling head. Pre-shaping of the receiver prior to placing same on the filling head is here included.

(1) Note. Examples of such essential flexibility or yielding character are automatic control of a filling operation by expansion of the receiver being filled and excess material removal by contraction of the receiver, and delivery of contents material by collapsing walls of the supply container.

(2) Note. Motion of a foldable flap about its hinge line being analogous to the motion of other closure elements, is not included in this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

154, for successive receiver type filling systems in which the receivers have flap closed inlets, see (2) Note.

166, for successive receiver type filling systems for bags or similar receivers.

312, for expansible centering or holding means for receivers which may or may not be of the bag type.

313, for miscellaneous flexible or collapsible receiver coacting means in filling devices.

314+, for bag or liner securing means in filling systems.

350, for coupling controlled receiver inlet flow in which the inlet has an externally engaged flap or closure member.

SEE OR SEARCH CLASS:

53, Package Making, subclasses 570+ for a packaging machine for forming and filling a bag, subclasses 373.3+ for closing a package or filled receptacle by means adapted to engage a closure flap, and subclasses 381.1+ for package making including means to open or erect a receptacle.

115 This subclass is indented under the class definition. Apparatus having means (1) to obviate spillage or escape of material from the system after the separation or disconnection of the receiver from the filling means or (2) for the removal of contents material from the receiver. The means to obviate spillage or escape of material from the system may act either through the filling head means, i.e., by reversal of operation, or by pouring off or extracting contents material already in the receiver, the means acting in either event beyond the last point of stoppage of flow by the filling head means.

(1) Note. This subclass does not include apparatus for simultaneously filling and overflowing the receiver unless a flow line is provided, (i.e., spilling out) nor for overflowing and collecting spilled contents material.

SEE OR SEARCH THIS CLASS, SUBCLASS:

35+, for arrangements for directing overflow to the succeeding receiver.

70, for material treatment apparatus comprising fluid contact means for jetting and/or bubble removing, for example.

86+, for overflow collecting means.

285+, for filling heads having plural flow passages, one of which may provide for outflow of overflow material. In these subclasses no means for positive action to withdraw contents material is provided.

116 This subclass is indented under subclass 115. Apparatus in which the contents material beyond the last point of stoppage is removed

- from the receiver or dispenser outlet means by returning such contents material to the supply through the filling means.
- 117** This subclass is indented under subclass 116. Apparatus in which the means reversing direction of flow includes a volume increasing means for such purpose carried by the filling means and operative upon disconnection from the receiver.
- (1) Note. The referred to head is of telescoping or equivalent-type chamber and becomes compressed when engaged with the receiver. Disengaging the head and receiver permits the head to expand and act as a vacuum pump.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 60, for a vacuum pump means comprising a receiver coupling portion of the system.
- 118** This subclass is indented under subclass 116. Apparatus in which the contents material is caused to flow in a reverse direction by means effective to tilt or tip the receiver and connected filling means.
- SEE OR SEARCH CLASS:
- 414, Material or Article Handling, subclasses 403+ for receptacle emptying devices, particularly subclasses 404+ and 425 for dumping and upending devices respectively.
- 119** This subclass is indented under subclass 116. Apparatus in which flow reversal is caused by a negative pressure means which is controlled by a means simultaneously operative with the contents material supply control means.
- 120** This subclass is indented under subclass 116. Apparatus in which the filling means is provided with a flow line which is operative as a siphon after filling to return contents material from the receiver or from the shorter leg of such siphon to the supply source.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 230, for apparatus which halts flow of contents material in a siphon filling arrangement.
- 323, for siphon type filling apparatus.
- 121** This subclass is indented under subclass 115. Apparatus having an overfill removal location which is distinct from the filling location.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 80, for combined overflowers and packers or toppers which compact material in a filled receiver and are structurally similar to displacement means for removing overfill from receivers.
- 122** This subclass is indented under subclass 121. Apparatus having means to continue the filling operation at the same or different station following contents material overfill removal.
- 123** This subclass is indented under subclass 121. Apparatus in which the removal means comprises a device which forces contents material out of the receiver by its weight or by change in volume, combined with means for establishing subatmospheric pressure on such contents material in said device.
- 124** This subclass is indented under subclass 121. Apparatus in which the removal station comprises means to invert or tip the receiver to spill excess material therefrom.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 163, for horizontal axis conveyors.
- 171, for filling apparatus comprising means changing the receiver orientation.
- 125** This subclass is indented under subclass 121. Apparatus including means such as a rolling contact wiper or brush, a spatula or skimmer, or a scraper for movement across or into the mouth of a receiver for removal of excess material therefrom.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 89, for cleaning apparatus for use in filling arrangement wherein the contents material has escaped from the confining means of the receiver.
- 280, for devices in which relative lateral movement of head and receiver has a scraping or leveling effect on the receiver contents.

126 This subclass is indented under subclass 115. Apparatus having means for adding and extracting contents material to and from the receiver at the same station at the same time.

- (1) Note. The simultaneous filling of and removing from the receptacle does not necessarily commence at the very beginning of the filling cycle, i.e., a certain level of contents material will first have been reached in the receiver before the removal means becomes effective.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 86+, for means simultaneously filling and collecting overflow and see the note to subclass 115 above.

127 This subclass is indented under subclass 126. Apparatus in which simultaneous filling and removing is accomplished by plural fluid flow causing devices or by a fluid flow device which when acting in one direction causes filling and when acting in the opposite direction causes removal of contents material.

128 This subclass is indented under the class definition. Apparatus in which the flow of contents material is diminished at the end of a cycle, usually for the purpose of more easily controlling the exact level in the receiver.

SEE OR SEARCH CLASS:

- 177, Weighing Scales, subclasses 122+ for plural feed to a weigher.

129 This subclass is indented under the class definition. Apparatus comprising filling systems of one or more filling stations or heads and conveying means for receivers by which the filled receivers are replaced by empty ones progres-

sively, i.e., the filled receiver does not move through the same path as the empty one and succession is insured by some means or mode of operation of the machine.

- (1) Note. The conveying means may comprise any device within the class definition of Classes 193, 198, 214, and related classes. If the conveyor is a mere guide it must be possible to move the filled receiver by pushing on the succeeding empty one.
- (2) Note. Multiple-headed machines of the progressive type, i.e., having plural receivers in different stages of filling during rotation or translation of the group, are included even though the receivers are places and removed by hand at the beginning and end of the course.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 103, for plural stations filling operations in which a manual filling operation may be involved.
- 391, for miscellaneous aids to manual filling, and see the search notes to that subclass.

SEE OR SEARCH CLASS:

- 53, Package making, subclasses 250+ for package making machines for articles and specially arranged materials with means to supply successive receptacles.

130 This subclass is indented under subclass 129. Apparatus in which a series of receivers is presented to a continuous flow in such a way that small amounts, usually separated at intervals for sampling purposes, are removed from the flow stream and filled in successive receivers.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 184, for successive receiver type filling systems in which operation is stopped after a predetermined number of filling cycles.

SEE OR SEARCH CLASS:

73, Measuring and Testing, subclasses
864.24+ for an analogous apparatus
for removing fluid from successive
receivers.

131 This subclass is indented under subclass 129. Apparatus in which the flow from the contents supply is not cut off between the filling of successive receivers by any means carried by the contents-supplying part of the system, but is diverted from one receiver to another or checked between receiver filling points or operations by some characteristic of the receiver or by the receiver carrier.

132 This subclass is indented under subclass 131. Apparatus in which the successive receivers do not form a continuous surface opposed to or receiving the flowing material when they are in normal side by side relationship and means is provided to adjust the receivers vertically or laterally into closer or overlapping relation, or shields are applied to the receivers to fill the spaces normally occurring between them.

133 This subclass is indented under subclass 131. Apparatus in which the means for supplying the successive receivers constitutes a means for occupying space between receivers and opposes the flow of material to points other than receiver's inlet.

(1) Note. The receiver carrier or conveyor must have a translating motion with respect to the contents outlet during material flow.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

135+, for receivers and filling heads moving laterally as a unit during flow relation.

134 This subclass is indented under subclass 131. Apparatus in which spaced outlets are provided and the continuous contents flow as to any one outlet is shifted in the direction of the line of receivers so that the flow alternately follows a given receiver and shifts backward to another outlet above a succeeding receiver.

135 This subclass is indented under subclass 129. Apparatus in which the unit comprising a filling means outlet and a receiver move together during flow relation in a direction transverse to the direction in which the filling means and receiver move into filling relation.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

62, for diverse fluid containing filling systems of the closed type having lateral travel of registering head and receiver.

101, for filling systems providing plural materials, plural material supplies or plural charges in a receiver and having lateral travel of registering head and receiver.

SEE OR SEARCH CLASS:

53, Package Making, subclasses 276+ for machines for filling preformed receptacles and closing in which diverse heads are rotatively indexing and progressively acting.

136 This subclass is indented under subclass 135. Apparatus in which the filling means comprises siphon type heads which are progressively entered into and removed from the receivers by a swinging or lifting action.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

230, for filling systems with siphon flow control by level in the receiver, and see the search notes to that subclass for other siphon type fillers or dispensers.

137 This subclass is indented under subclass 135. Apparatus in which a head or filling device after traveling with an associated receiver until filling is accomplished returns along that path to meet the succeeding receiver and again reverses its direction to accompany that receiver.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

134, for successive receiver type filling systems having a continuous flow redirected between spaced outlets.

138 This subclass is indented under subclass 135. Apparatus in which the repeated operation of the cycle of filling receivers is discontinued or interrupted because of some undesired condition in the machine or because of the failure to supply contents material or a receiver.

- (1) Note. The change may include stopping the machine or merely skipping one operation connected with the missing charge or receiver, but if it is caused by lack of a receiver that lack must be at a filling station or corresponding conveyor position, and not merely failure to supply the machine with receivers at the beginning of the conveyor line.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 13, for modifications of the filling cycle useful in starting and stopping an operation consisting of an undetermined number of cycles.
- 83, for filling systems with testing or weighing of the receiver contents, with or without subsequent automatic control.
- 156+, for other successive receiver type filling means in which the filler is triggered by the receiver.
- 184, for successive receiver type filling systems having a self-terminating operation after a predetermined period or number of filling operations.
- 192+, for automatic control of flow cut-off or diversions in filling devices.

SEE OR SEARCH CLASS:

- 53, Package Making, subclasses 52+ for automatic or triggered control in filling machine of the packaging type.

139 This subclass is indented under subclass 138. Apparatus in which the control of the cycle is effected by the contents material, means being provided to sense the lack of, or some irregularity in the feed of, the contents material.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 153, for automatic control by contents material in other filling systems of the successive receiver type.

- 192+, for automatic control of flow cut-off or diversion in other filling systems, and see the search notes thereto.

140 This subclass is indented under subclass 138. Apparatus having a series of progressively acting heads and characterized by the fact that failure to provide a receiver at any given head inactivates that head for the particular cycle in which no receiver is supplied.

- (1) Note. The charge intended for the receiver may either be retained in the supply system or diverted to another point, or other means may operate to prevent the formation of the charge.
- (2) Note. In this subclass are those patents where the valve or trap is operated by contact with the receiver, there being obviously no operation of the valve or trap if there is no receiver present at the station.
- (3) Note. Machines having this character of operation are known in the art as no-can-no-fill type.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 157+, for other successive receptacle type filling machines with receiver triggering.

SEE OR SEARCH CLASS:

- 53, Package Making, subclasses 67+ for packaging machines in which the operation is responsive to the presence or absence of the preformed receptacle; 351+ for supply means with receiver actuated discharge means, and see the search notes thereto for other coupling operated flow controllers.

141 This subclass is indented under subclass 140. Apparatus in which a trip, linkage, latch or servo motor is activated by the presence or absence of the receiver either to cause the charge to be filled into the receiver or to prevent the charge being supplied as the case may be.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
159+, for other successive receptacle type filling machines with receiver triggered operation through power control.
- 142** This subclass is indented under subclass 141. Apparatus in which the control means comprises a cam or other track of a contour calculated to cause or control a cycle of operation for a particular head and the means responsive to the presence or absence of a receiver for this head causes a follower or control element to take different paths with respect to the track in accordance with the presence or absence of a receiver.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
159, for other successive receiver type filling systems having power control involving cam track switching.
- 143** This subclass is indented under subclass 141. Apparatus in which the control means comprises a trigger moving about a vertical axis under the influence of the receiver.
- 144** This subclass is indented under subclass 135. Apparatus in which the progressively acting set of heads travels in a rotary path about an axis.
- 145** This subclass is indented under subclass 144. Apparatus in which the rotary set of heads and the conveyor for the rotating set of receptacles have a common vertical axis.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
183, for other successive receiver type filling systems having a rotary conveyor, and see the search notes to that subclass.
- 146** This subclass is indented under subclass 145. Apparatus in which each filling head has a vertically reciprocating member connected therewith and causing or controlling the filling operations.
- SEE OR SEARCH CLASS:
222, Dispensing, subclass 168.5 for dispensing devices of this type.
- 147** This subclass is indented under subclass 145. Apparatus in which each of the heads is provided with a valve, guide or other means related to the filling operation which means is operated by contact with a stationary part of the filling apparatus comprising a shaped track or projection so disposed as to operate the part at the desired point.
- 148** This subclass is indented under subclass 145. Apparatus in which means is provided for elevating the receiver into position associated with the head from which it is to receive its charge.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
172, for filling systems of the successive receiver type having plural conveyors one of which is a means for lifting or lowering a receiver.
275+, for receiver lifts or lowering means for filling purposes.
- 149** This subclass is indented under subclass 148. Apparatus in which the lift is provided with means for bringing the receiver into filling relation in such a way that discrepancies in size are accommodated by a lost motion or other cushioning effect.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
278, for other receiver lifts or lowering devices with yielding features.
- 150** This subclass is indented under subclass 148. Apparatus in which the lifting or lowering of the receiver is controlled by a projection or cam follower traveling on a shaped track.
- 151** This subclass is indented under subclass 145. Apparatus in which the receivers are placed in the entrance position to the filling circle by hand.
- (1) Note. Removal may be manual or by ejecting means provided in the machine.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

391, for miscellaneous aids to manual filling operations or steps, and see the search notes thereto for related search fields.

152 This subclass is indented under subclass 145. Apparatus in which the machine comprises parts adjustable for the accommodation of receivers of different sizes.

(1) Note. The adjustment must be to the physical size of the receiver such as in the receiver support, in the position of the head or in some other capacity than mere quantity of the charge as determined by the supply means independently of its contact with a receiver.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

177, for filling systems of the successive receiver type having a nozzle, guide or conveyor adjustable to the receiver size.

266, for adjustable, movable components in filling systems having means to move the supply and receiver to, from or during flow relation.

376, for filling systems having an adjustable support for the supply.

378+, for filling systems having an adjustable support for the receiver.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 282+ and 434 for variable volume dispensers.

153 This subclass is indented under subclass 129. Apparatus in which the filling of the successive receivers or any one of them is responsive in some way to the presence, absence or some varying condition of the contents material.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

139, for automatic control of filling systems having lateral motion of the registering head and receiver in response to a condition of the contents material.

192+, for automatic control of flow cut-off or diversion in filling systems generally, and see the search notes thereto.

SEE OR SEARCH CLASS:

53, Package Making, subclasses 52+ for automatic or triggered controlled of package making systems and especially subclasses 56+, 73, 74, and 493 for triggering or control by presence of contents.

222, Dispensing, subclasses 52+ for automatic control of dispensing systems.

154 This subclass is indented under subclass 129. Apparatus in which the filling system is combined with or possesses features having special utility in connection with receivers which have an inlet alined with the flow path of the entering material, which inlet is not symmetrically placed with reference to the dimension of the receiver, transverse to the inlet axis or which have an inlet closed by a flap attached to the margin of the inlet.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

114, for filling systems involving the manipulation of flexible or collapsible receivers or supply containers.

155 This subclass is indented under subclass 129. Apparatus in which (1) two or more portions of the apparatus having distinct functions each have the regulating elements therefor so arranged as to require one element to assume a desired position simultaneously or in proper sequence with the positioning of another element, whereby the operation of one part is directly dependent upon the correct positioning of the regulated element of another part, this arrangement being something other than or in addition to the normal operating mechanism of the parts, or (2) some nonautomatic mechanism is so arranged as to prevent operation of parts or all of the machine when such operation would (a) endanger the person of an operator or (b) injure some part of the machine.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

97, for filling systems having a guard or screen for the operator.

- 156+, for filling systems having successive receivers supplied thereto where the filling operation is triggered by the presence of a plurality of receivers.
- 346+, for other interlocks in filling systems.
- SEE OR SEARCH CLASS:
- 53, Package Making, subclass 77 for interrelated or safety control in packaging machines.
- 100, Presses, subclass 63 for presses not elsewhere provided for which have interrelated or safety controls.
- 156** This subclass is indented under subclass 129. Apparatus in which means is provided for sensing a normal or desired condition or position of the receptacle, an abnormal or undesired condition or position of the receptacle, or the absence of the receptacle, and as a result of this sensing and without external intervention, bringing about an alteration in the operation or control of the filling system.
- (1) Note. The control operates through the starting or stopping of the drive of the system or some component part thereof so as to correct, avoid damage from or mitigate the effects of such condition, or to cause the normal operation or cessation of operation of the system or some parts thereof.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 140+, for no-can-no-fill systems of the turret type and other laterally moving head and receiver unit.
- 351+, for filling systems in which the discharge means is actuated by some motion of or by the presence of the receiver.
- SEE OR SEARCH CLASS:
- 53, Package Making, subclasses 52+ for package making machine having automatic or triggered control, especially subclasses 63 and 67+ for control by the receiver.
- 157** This subclass is indented under subclass 156. Apparatus in which the control over a single filling operation is exerted by the receiver which is intended to receive that particular charge.
- 158** This subclass is indented under subclass 157. Apparatus in which receivers are supplied with successive premeasured charges and in which a unit designed to form the charge for the missing receiver is either prevented from operating to receive a charge or is operated to dispose of its charge in some way other than the normal path.
- 159** This subclass is indented under subclass 157. Apparatus in which the control on the system is exerted by some linkage, latch, clutch, trip or servo system which is either operated by the presence of the receiver or prevented from operating by its absence.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 141+, for similar systems with laterally moving registering head and receiver units.
- 359, for receiver weight operated discharge means in other filling systems.
- 160** This subclass is indented under subclass 159. Apparatus in which the responsive member comprises or operates an auxiliary valve or switch which in turn controls the operation of a motor or transducer connected to the related filling unit.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 361, for servo system filling devices having an actuator juxtaposed to the outlet for contact with the receiver.
- 161** This subclass is indented under subclass 159. Apparatus in which the responsive means operates to engage or disengage a clutch comprised in the operating means for the filling unit related to the receiver position.
- 162** This subclass is indented under subclass 157. Apparatus in which power is transmitted from the conveyor to the supply units by the lateral motion of the receiver which is imparted to it by the conveyor and transmitted by it either directly to the supply unit or to a latch, mechanical movement, etc., which operates the supply unit.

- 163** This subclass is indented under subclass 129. Apparatus in which the conveyor, either endless or rotary, has a horizontally placed arbor or axis adjacent the filling position so that the receiver changes its orientation in connection with the filling operation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 113+, for receivers which are filled through the bottom or while inverted.
- 118, and 124, for drip prevention and over-fill removal by tilting a receiver.
- 171, for conveyors for successive receivers which change the orientation of the receivers.
- 164** This subclass is indented under subclass 129. Apparatus in which the receiver is supported on its side on the conveyor and is filled while occupying a horizontal or substantially horizontal position.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 67+, for filling systems in which a fluent charge is impelled or blown into a receiver.
- 113, for filling systems in which the receiver is filled through the bottom or while inverted.
- 163, for horizontal axis conveyors to supply successive receivers.
- 165** This subclass is indented under subclass 129. Apparatus in which a conveyor is provided with movable means to center or guide the receiver into position for accurate alignment with the supply outlet, or movable means is provided either on the filling head or on the conveyor to engage the receiver by friction or compression, (e.g. spring clip) and support it against gravity or against shifting from proper position.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 269, for filling systems in which a clamp or the receiver is interconnected with a movable supply head or receiver lift.
- 166** This subclass is indented under subclass 165. Apparatus in which the support is specially adapted to support a receiver of the bag type.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 313+, for filling means with receiver or receiver coacting means especially adapted for flexible or collapsible receivers, and see the search notes to this group of subclasses.
- 167** This subclass is indented under subclass 129. Apparatus in which the speed of travel of the receiver is varied during its course through the machine while on a single conveyor.
- (1) Note. Travel through successive circular paths of different radii is included.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 168+, for plural conveyors operating in series, the relative speed of which may differ.
- SEE OR SEARCH CLASS:
- 198, Conveyors: Power-Driven, appropriate subclasses for receiver drives of similar characteristics.
- 168** This subclass is indented under subclass 129. Apparatus in which the receiver handling means comprises plural conveyors operating sequentially to transport each receiver, or a conveyor and (1) additional means for raising the receiver above the conveyor or lowering it from that position to the conveyor, or (2) means for otherwise manipulating the receiver as by supplying it to or removing it from the conveyor.
- (1) Note. Manipulating means includes means to lift, lower, dispense or discharge a receiver.
- SEE OR SEARCH CLASS:
- 198, Conveyors: Power-Driven, appropriate subclasses for systems of plural conveyors successively carrying the same load.

- 169** This subclass is indented under subclass 168. Apparatus in which the successive receivers are rearranged to or from a single line from or to plural lines.

SEE OR SEARCH CLASS:

- 198, Conveyors: Power-Driven, sub-classes 434+ for a system of plural conveyors for arranging or rearranging a stream, or streams, of items.

- 170** This subclass is indented under subclass 168. Apparatus in which the receiver is shifted transversely from one conveyor to another which is in a generally parallel relation to the first, the filling operation taking place in connection with the shift.

SEE OR SEARCH CLASS:

- 198, Conveyors: Power-Driven, sub-classes 367+, 370.07 through 370.09, 370.1, 370.11 through 370.13, 426+, 463.1+, 597+, 599, 637, and others for means for moving a load off a conveyor.

- 171** This subclass is indented under subclass 168. Apparatus in which a receiver is stored, dispensed or entered into the conveyor system with its major axis in a different position from which it occupies in receiving its charge, or in which a change in position occurs after filling and prior to or during the removal of the receiver from the conveyor system.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 110, for receivers filled by being dipped or immersed in the supply material.
113, for receivers filled through the bottom or while inverted.
163, for receiver filled on a conveyor having a horizontal axis.
164, for receivers supported on their side during the filling operation.

- 172** This subclass is indented under subclass 168. Apparatus in which at least one power driven or other type of conveyor is combined with means for elevating the receiver above the conveyor line, usually for the purpose of bringing it in contact with the filling head.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 275+, for filling systems in which the receiver is raised or lowered with reference to the filling means in connection with the filling operation, and see the search notes to subclass 275.

- 173** This subclass is indented under subclass 168. Apparatus in which a receiver supply is provided from which receivers are transferred to the filling system proper either at the filling station or to the conveyor at some point prior thereto.

SEE OR SEARCH CLASS:

- 221, Article Dispensing, appropriate sub-classes.

- 174** This subclass is indented under subclass 173. Apparatus having means especially adapted to feed cups to a filling station one at a time from a nested or stacked arrangement.

SEE OR SEARCH CLASS:

- 221, Article Dispensing, particularly subclass 96 for dispensers of cup type receivers in combination with fluent material dispensers wherein the organization includes a mere support for the cup in filling position at most, i.e. no means for guiding or bringing the dispersed cup into filling relation with the fluent material dispenser.
222, Dispensing, subclasses 129+ for plural compartment dispensers there provided in which a second compartment may be included for supporting a stack of cups, the relation not being appropriate to the article dispensing nor the filling with fluent material classes.

- 175** This subclass is indented under subclass 173. Apparatus in which successive receivers are advanced by being pushed a distance equal to the transverse dimension of the receiver in the direction of its advance, a pause usually for filling intervening between successive strokes.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

173, for similar apparatus in which the initial push imparted to a receiver is a dispensing operation for that receiver, and subsequent strokes dispense another receiver while advancing the preceding receiver.

- 176** This subclass is indented under subclass 168. Apparatus in which means is provided to separate the filled receiver from that part of the system in which it receives its charge either by removing it from the conveying system entirely or by transferring it to another conveyor, said means being relatively movable with respect to the filling conveyor.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

281+, for filling systems with means for manipulating a filled receiver for separation from its support or filling head, and see the search notes to subclass 281.

SEE OR SEARCH CLASS:

198, Conveyors: Power-Driven, subclasses 367+, 370.07 through 370.09, 370.1, 370.11 through 370.13, 426+, 463.1+, 597+, 599, 637, and others for means for moving a load off a conveyor.

- 177** This subclass is indented under subclass 129. Apparatus in which the filling means outlet and the conveyor support for the receiver are relatively adjustable to provide for receivers of different sizes or heights and/or either the filling head or the receiver seat on the conveyor is adjustable for receivers of different sizes.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

152, for turret type filling systems having means for adjustment to receiver size.
235, for plural filling means comprising heads which are adjustably spaced one from another.
266, for filling systems having supply means or receiver supports which are relatively movable during or in con-

nection with flow relation and having an adjustable, movable component.

367+, for filling means having adjustable contact area or size filling heads.
376, for filling systems having an adjustable support for the contents supply.
378, for adjustable support for receivers.

SEE OR SEARCH CLASS:

198, Conveyors: Power-Driven, subclasses 117+ for adjustable conveyors.
222, Dispensing, subclasses 282+ for dispensers of the discharge assistant type with discharge volume varying means, subclasses 434+ for trap type dispensers with discharge volume varying means.

- 178** This subclass is indented under subclass 129. Apparatus in which multiple receivers are handled as an individual unit in other than side by side (duplicate) filling arrangement or in single sequential arrangement.

(1) Note. Handling plural receivers in crates or trays for filling is here classified only if the tray or crate is handled as a single unit and does not merely become part of the conveyor system to feed a side by side (duplicate) line of receivers to duplicate heads.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

179, for filling systems in which multiple receivers are filled at one cycle but in which the plurality of receivers is handled individually being separated into appropriate groups from a compacted line.
183+, for conveying means to supply successive receivers in trays or crates with conveyor interconnected contents discharge means and see (1) Note above.
234+, for plural filling heads or means either in columns or rows, i.e. side by side or in depth.

- 179** This subclass is indented under subclass 178. Apparatus in which multiple filling heads operate on corresponding multiple receivers, said receivers being supplied in a single line which

advances in multiple spaces corresponding to the number of filling heads, and the receivers being counted off or grouped as needed.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

186, for filling systems of the successive receiver type comprising plural lines or stations, and see the search notes to that subclass.

- 180** This subclass is indented under subclass 129. Apparatus in which a moving conveyor slides beneath a receiver in filling position, the receiver being detained by appropriate means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

172, for means for lifting a receiver from a conveyor which may or may not continue to move.

- 181** This subclass is indented under subclass 129. Apparatus in which the supply manifold or one or more filling heads are shifted vertically to bring them into coacting relation with receivers supplied by the conveyor.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

250, for filling systems in which movement of a head or tube to filling position operates in connection with the movement of a trap or valve.

279, for supply systems having a movable head or supply and provided with a movable support therefor and a hose type connection to some preceding source or supply.

284, for filling systems having a movably mounted supply, the movement being connected with the filling operation.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 160+ for dispensers having a movably mounted supply.

- 182** This subclass is indented under subclass 181. Apparatus in which the movable means for bridging the gap between a stationary supply manifold, measuring chamber, etc., and the receiver supplied by the conveyor comprises a noncontrolling type of sleeve or funnel which

is movable or removable with respect to the preceding section of the supply means.

- 183** This subclass is indented under subclass 129. Apparatus in which the supply of the contents and the supply of the successive receivers are interconnected or sequentially related in the cyclical operation of the machine.

(1) Note. See the class definition for the meaning of cyclical operation.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

144+, for filling systems of the successive receiver type having a rotary set of progressively acting heads.

- 184** This subclass is indented under subclass 183. Apparatus in which a filling system designed to perform at least two cycles, that is, to fill at least two successive receivers, is arranged to cease operation after a predetermined number of cycles or after filling a predetermined number of receivers.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

13, for filling systems which have a modified cycle in the initial or closing part of a more or less prolonged period of operation.

155, for filling systems which cease to operate under emergency conditions, i.e., those relating to failure which cannot be foreseen. Thus the exhausting of a limited supply of contents material or the completion of filling of a definite number of receivers is not an unforeseen condition.

- 185** This subclass is indented under subclass 184. Apparatus in which receivers are filled as a group a row at a time, the filling of a row comprising a cycle.

- 186** This subclass is indented under subclass 183. Apparatus in which two or more units are provided each of which comprises a head and means for supplying successive receivers and is capable of operating as a filling system if separated from the other units.

- (1) Note. The lines are substantial duplicates although they may be set up as entirely separate structures or as mere multiple heads on the same source of supply or multiple lines of receivers on the same conveyor.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 9, for corresponding processes.
 16, for siphon bottle filling with plural heads, stations or materials.
 35+, for plural connected receivers filled by serial flow.
 59, for filling systems operating with diverse fluids under pressure and involving an exhausting operation applied to sets of receivers.
 99, for plural filling lines which are differentiated as to some characteristic.
 100+, for filling systems having plural materials or material supplies or placing plural charges in a receiver.
 234+, for filling systems comprising plural filling means.

SEE OR SEARCH CLASS:

- 53, Package Making, subclasses 168+ for selective or alternate supply of plural covers and/or plural contents in package making machinery subclass 202 for plural line packaging.
 222, Dispensing, subclass 129 for dispensers involving plural sources, subclasses 265+ for discharge assistant operating in sets.

- 187** This subclass is indented under subclass 183. Apparatus in which the contents handling means operates by engaging the sides of a moving column of material frictionally or by entering partially into the moving column of material to advance it in the direction of the supply outlets.

- (1) Note. The means must not be continuous so as to comprise a cut-off or separating element between successive charges. If separation of charges occurs it must be at least partly a breaking away of the column of material.

SEE OR SEARCH CLASS:

- 53, Package Making, subclasses 235+ for packaging machines in which a charge separated from a moving column is subsequently handled as an article, i.e., by means which do not confine it laterally to a flow path.
 226, Advancing Material of Indeterminate Length, appropriate subclasses for material handling means which advance a cord, strand or other column of material by engaging the sides thereof.

- 188** This subclass is indented under subclass 183. Apparatus in which the timing of a cycle of operations involving at least one valve can be changed, usually for the purpose of varying the amount of material supplied to a given receiver.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclass 287 for dispensers having an adjustment in a relatively movable actuator for a discharge assistant, subclass 309 for adjustable stroke pump, piston, pulsator or follower, subclass 310 for variable volume dispensers having a discharge assistant combined with a discharge controller.

- 189** This subclass is indented under subclass 183. Apparatus in which the contents discharge means is controlled by a protuberance on the upper or receiver-supporting portion or face of the conveyor.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 162, for transfer of power from the conveyor to the supply means through the receiver as a link in the transmission.

- 190** This subclass is indented under subclass 183. Apparatus having a ratchet type drive for the conveyor.

- 191** This subclass is indented under subclass 183. Apparatus having a cam drive for one (either the discharge means or conveyor) and a gear drive for the other.

192 This subclass is indented under the class definition. Apparatus having some element of control which operates in response to a condition in or about the receiver either to divert the material of the system elsewhere or to terminate its flow to the said receiver.

- (1) Note. Where the bringing together of parts of the system establishes a flow path and subsequent flow of materials the system is not deemed automatic.
- (2) Note. Establishing or maintaining a state of equilibrium (i.e. without flow cut-off) is not automatic control.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 13, for filling systems which have a modified cycle in the initial or closing part of a more or less prolonged period of operation.
- 39, for diverse fluid pressure containing systems wherein the filling means is controlled by a gas condition in the receiver.
- 83, for filling apparatus including testing or weighing receiver contents.
- 95, for filling apparatus including signals, indicators and the like which are responsive to level or pressure in the receiver.
- 138+, for filling systems with means to supply successive receivers including means for interrupting a cycle.
- 153, for automatic control of filling cycle by contents material.
- 155, for filling systems which cease to operate under emergency conditions.
- 156+, for filling systems wherein the filling means is triggered by the presence of the receiver.
- 184+, for filling apparatus arranged to cease operation after a predetermined number of cycles or after filling a predetermined number of receivers.
- 285+, for appropriate subclasses, wherein equilibrium of the system may be established or maintained by claimed means.
- 291+, for supply valves operated by receiver engaging means.

351+, for receiver actuated discharge means for establishing a flow path and subsequent flow of material.

193 This subclass is indented under subclass 192. Apparatus in which the element of control responds to the relative movement away from each other of the supply means and some means for engaging the receiver, the relative recession being due to or controlled by the state of the filling operation as revealed by the amount of material in the receiver.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

251, and 263+, for nonautomatic systems in which there is a relatively receding motion between some supply means and receiver engaging means during a flow relation.

194 This subclass is indented under subclass 193. Apparatus additionally comprising means to separate a filled receiver from the supply means flow relationship.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 176, for apparatus comprising conveying means to supply successive receivers and which include conveying means for removing or ejecting a filled receiver.
- 272, for a tilting type receiver support for separating the receiver from the filling head.
- 281, for means manipulating a filled receiver for separating it from the head or support.

195 This subclass is indented under subclass 193. Apparatus including a means which causes separation of material from the supply and which responds to the level of contents material in such receivers.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

198+, for other level or overflow responsive means, such means responding to a condition in a receiver.

- 196** This subclass is indented under subclass 192. Apparatus in which the element of control responds (1) to a condition in a receiver other than that which is at the filling station or in a chamber of a volume equivalent to the receiver or designed to receive overflow, or (2) to the level of material in the receiver being filled to cause the filling means to divert the material being delivered thereby to some other point in the system.
- SEE OR SEARCH CLASS:
137, Fluid Handling, subclasses 119.01+ for fluent material handling systems in which flow to alternate or successively substituted paths is self-controlled.
- 197** This subclass is indented under subclass 192. Apparatus especially designed for operation in receivers being filled or having been filled with gaseous material.
- SEE OR SEARCH CLASS:
137, Fluid Handling, for inflatable article filling chucks and stems, many of which have automatic control features.
- 198** This subclass is indented under subclass 192. Apparatus in which the element of control is responsive to the presence of contents material in the receiver being filled.
- SEE OR SEARCH CLASS:
137, Fluid Handling, subclasses 386+ for liquid level responsive or maintaining systems.
- 199** This subclass is indented under subclass 198. Apparatus having a funnel type supply means with a flow controlling arrangement which is responsive to a buoyant element which arrangement causes termination of flow.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
297+, and 331+, for other funnel type filling means.
- 200** This subclass is indented under subclass 199. Apparatus in which the flow controlling means is held in open position during the filling operation against a bias toward closing.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
218+, for other level or overflow responsive valves of the latched type.
- SEE OR SEARCH CLASS:
251, Valves and Valve Actuation, subclasses 66+ for trip control of biased valves.
- 201** This subclass is indented under subclass 199. Apparatus in which the supply means has a flow controlling means which is normally held in open position and in which the element of control operates to hold the said flow controlling means closed after a predetermined level of material has been reached in the receiver.
- 202** This subclass is indented under subclass 199. Apparatus in which the supply means is provided with at least two serially arranged flow controlling means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
210+, for plural series arranged valves with manual and level control, and see the search notes to subclass 210.
- 203** This subclass is indented under subclass 199. Apparatus in which the flow controlling means is provided with a handle or guide which is operative from the upper portion of the said supply funnel.
- SEE OR SEARCH CLASS:
222, Dispensing, subclasses 470+ for dispensers having a flow controller associated with the supply container handle.
- 204** This subclass is indented under subclass 203. Apparatus in which the guide or handle mounts both the flow controlling means and the level responsive means.

- 205** This subclass is indented under subclass 199. Apparatus having a flow controlling means which is constrained to move in hinge fashion.
- SEE OR SEARCH CLASS:
137, Fluid Handling, subclass 448 for float arm operated pivoted valves.
- 206** This subclass is indented under subclass 198. Filling apparatus including a flow controlling means which is opened by hand for commencement of flow to the receiver and having (1) means responsive to a predetermined quantity of contents material in the receiver and (2) some hand controlled means for terminating the flow to such receiver. The manual means and the level responsive means do not necessarily act to control the same valve.
- (1) Note. In this and the indented subclasses are classified for the most part filling station dispensing nozzles which are hand held and/or supported and controlled for at least a portion of the filling period and such subcombinations thereof which include claims to the level or overflow responsive means and which have the readily separable dispenser-receiver disclosure.
- (2) Note. With reference to (1) Note above, and subclasses 210+ it should be noted that many of the patents in the fore said group claim only for example, the self-opening and level responsive valve means and make no mention of the manually initiated or controlled valve serially preceding such valve. Stated differently many of the patents in subclasses 210+ disclose the required combination for the group; however, they claim only an attachment for the ordinary manually controlled dispensing nozzle.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
199+, appropriate subclasses for funnel type supply means having a manually opened flow controller and level responsive cut-off means.
- 387+, for filling heads shiftably or separately connected to a supply means, which heads may be hand held.
- SEE OR SEARCH CLASS:
137, Fluid Handling, subclass 390 for fluent material handling means comprising a level responsive flow controller having a second manual control.
- 207** This subclass is indented under subclass 206. Filling apparatus having means which precludes commencement of filling until the positioning of the filling means is satisfactorily established with the receiver, such means being more than a mere valve operator involved in the positioning operation.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
346, for filling means having interlocked discharge means supporting means and/or coupling means.
- 208** This subclass is indented under subclass 206. Filling apparatus having means effective to cause stoppage of flow as a result of disconnection of the filling means from the receiver.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
347, for discharging means having coupling means responsive to material flow.
- 209** This subclass is indented under subclass 206. Filling apparatus in which the level responsive means operates to render the hand controlled flow cut-off means inoperative.
- (1) Note. The usual arrangement in this type of filling organization is to have a flow controller which is spring biased to closed position, the disabler or disconnecting means rendering the biasing means effective to close the valve and terminate flow.
- SEE OR SEARCH CLASS:
251, Valves and Valve Actuation, subclasses 89+ for details of means for blocking or disabling a valve actuator.

- 210** This subclass is indented under subclass 206. Filling apparatus in which there is claimed or disclosed diverse controls for diverse flow controlling means which latter means are serially arranged in the liquid flow path to the receiver.
- (1) Note. For reference to the limitation of this and indented subclasses, see the search note below.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 206, for reference to the limitation of this subclass (210) and indented subclasses.
- 228, for similar arrangements wherein the manually initiated valve of this and the indented subclasses is replaced by an externally initiated valve.
- SEE OR SEARCH CLASS:
- 137, Fluid Handling, subclasses 637+ for separate actuators for plural valves; 613 for distribution systems comprising plural serially arranged valves.
- 251, Valves and Valve Actuation, subclasses 6+ for serial meter-operated and manual flow line controllers.
- 211** This subclass is indented under subclass 210. Filling apparatus in which one of the flow controlling means is normally biased to noncut off position.
- 212** This subclass is indented under subclass 211. Filling apparatus in which the normally inoperative flow controlling means is started toward cut-off position by some buoyant means.
- 213** This subclass is indented under subclass 212. Filling apparatus in which the buoyant means has a lever pivotally attached thereto and which lever moves to close the flow controlling means.
- SEE OR SEARCH CLASS:
- 137, Fluid Handling, subclasses 434+ for float arm operated valves, per se.
- 214** This subclass is indented under subclass 211. Filling apparatus in which the flow control cut-off means is started toward operative position by means responsive to a change in fluid pressure.
- SEE OR SEARCH CLASS:
- 137, Fluid Handling, subclass 393 for level control means operated by pressure change in an outlet or inlet at liquid level in a fluid handling system of the nonseparable type; subclass 413 for fluid-pressure servo-relay operation of the level responsive valve.
- 215** This subclass is indented under subclass 214. Filling apparatus in which fluid in the flow line means behind the flow cut-off means operates to seat the said cut-off means.
- 216** This subclass is indented under subclass 210. Filling apparatus in which one of the means controlling flow in the flow line to the receiver comprises a buoyant means movement of which operates to directly apply a force to the flow cut-off means.
- 217** This subclass is indented under subclass 206. Filling apparatus in which at least two distinct means effect operation of a single flow line cut-off means.
- SEE OR SEARCH CLASS:
- 137, Fluid Handling, subclass 390 for liquid level responsive valves having manual control also.
- 218** This subclass is indented under subclass 217. Filling apparatus in which the cut-off means is mechanically held by a stop means (not by weight or gravity or vacuum) in open position during normal operation of the filling means against a closing bias.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 200, for a funnel valve similarly arranged.
- 217, for valve means held open by its weight or gravity or by vacuum means.
- SEE OR SEARCH CLASS:
- 137, Fluid Handling, subclasses 420+ for trip mechanism in float-controlled valves.

- 251, Valves and Valve Actuation, subclasses 66+ for trip control of biased valves generally.
- 219** This subclass is indented under subclass 218. Filling apparatus in which the holding means is rendered ineffective by electrically controlled magnetic means.
- SEE OR SEARCH CLASS:
251, Valves and Valve Actuation, subclasses 68+ for electromagnetically operated trip means in valves generally.
- 220** This subclass is indented under subclass 218. Filling apparatus in which the holding means is rendered ineffective by a buoyant means.
- 221** This subclass is indented under subclass 220. Filling apparatus including additional means for varying the effectiveness or responsiveness of the buoyant means.
- SEE OR SEARCH CLASS:
137, Fluid Handling, subclasses 416+ for quick-acting float controls for valves; 424+ for counter-balance means for float-controlled valves; 426 for level adjustment in float controls for valves.
- 222** This subclass is indented under subclass 221. Filling apparatus in which the effectiveness of the buoyant responsive means is changed by adjusting the operative position of the filling means relative to the receiver.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
368, for adjustable gage collars relating the receiver to the filling means.
- 223** This subclass is indented under subclass 220. Filling apparatus in which the flow cut-off means is urged to closing position by some additional resilient means.
- 224** This subclass is indented under subclass 223. Filling apparatus in which the cut-off means partakes of a reciprocating movement.
- 225** This subclass is indented under subclass 218. Filling apparatus in which the holding means is rendered ineffective by some means which responds to the change of the gaseous condition in the system.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
39+, for diverse fluid containing pressure filling systems wherein the filling means is controlled by a gas condition in the receiver.
214, for pressure control in one of plural series valves one of which is level responsive, and see the search notes thereto.
- 226** This subclass is indented under subclass 225. Filling apparatus in which the last mentioned means becomes operative upon an increased pressure condition in the receiver.
- 227** This subclass is indented under subclass 198. Filling apparatus having a cut-off means in addition to the level or overflow responsive means which is rendered ineffective through linkage or the like operated by means exterior of the filling means.
- (1) Note. The exterior means may comprise the receiver, the cut-off being rendered inoperative through some linkage means which react to the presence of or because of the reactive force exerted by the receiver.
- SEE OR SEARCH CLASS:
137, Fluid Handling, subclasses 389+ for nonseparable fluid handling systems having level responsive valves with a second diverse control; subclass 410 for liquid level responsive or maintaining systems including float control valves which valves may be opened by external means.
- 228** This subclass is indented under subclass 227. Filling apparatus which includes at least two fluid flow line cut-off means serially arranged.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
210, for similar arrangements including a manually operated valve for initiating flow, and see the search notes thereto.
- 229** This subclass is indented under subclass 228. Filling apparatus in which one of the means controlling fluid flow is responsive to a buoyant means.
- SEE OR SEARCH CLASS:
137, Fluid Handling, subclasses 409+ for float controlled valves in nonseparable fluid handling systems, and see the search notes to subclass 409.
- 230** This subclass is indented under the class definition. Apparatus comprising means which halts flow of contents material in a siphon filling arrangement by filling a receiver to a level corresponding to that level maintained in the supply means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
120, for overflow removal by siphonic return to supply.
136, for bodily lifted or swinging siphon filling means in a filling system for successive receivers.
323, for siphon type filling means.
- SEE OR SEARCH CLASS:
137, Fluid Handling, subclasses 123+ for fluent material handling systems comprising siphons, and see the search notes to subclass 123.
- 231** This subclass is indented under the class definition. Apparatus for supporting the system to enable it to be readily conveyed, or for supporting the supply means on a track-like mount.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
284, for movably mounted supply means, and see the search notes thereto.
- SEE OR SEARCH CLASS:
137, Fluid Handling, subclasses 899+ for fluent material handling systems mounted on vehicles.
- 222, Dispensing, subclasses 608+ for ambulant dispensers.
- 232** This subclass is indented under subclass 231. Apparatus comprising guide or rail means for supporting the filling system or the supply means for movement in a generally horizontal plane.
- 233** This subclass is indented under subclass 232. Filling apparatus in which the rail or guide means is carried by the means which supports the receiver.
- 234** This subclass is indented under the class definition. Apparatus comprising at least two separate or distinct means arranged in some unitary or cooperative manner whereat material may be delivered to receivers.
- (1) Note. Plural heads for filling compartmented receivers are considered to place plural charges in the receiver only if the receiver is included in the combination or some means is provided in the system which has utility only in that connection.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
99, for filling arrangements comprising diverse filling lines of heads and receivers.
100+, for filling arrangements comprising plural materials or material supplies or charges in a receiver, particularly subclasses 103+ where there is provided separate stations for a single receiver. See (1) Note.
178+, for conveying means to supply successive receivers the successive receivers being arranged in crates or trays.
- 235** This subclass is indented under subclass 234. Filling apparatus wherein the several filling means may be spaced at various distances from each other or wherein the receivers may be adjustably spaced one from the other for purposes of accommodating one to the other.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
177, for means for adjusting successive-receiver type filling mechanisms to

receiver size, and see the search notes for additional search fields on the various adjustment problems.

- 236** This subclass is indented under subclass 234. Filling apparatus having laterally spaced outlet or distributing means provided with separate means for conducting fluids having diverse characteristics or diverse flows to or from receivers, the plural flows of any one type having a common source or destination.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 37+, for apparatus for diverse fluid containing pressure filling systems involving receiver gas content modification, especially subclass 62 for annular type manifolds in turrets of the progressively indexing and filling type.
- 285+, for multiple passage filling means or filling heads for diverse materials or flows.

- 237** This subclass is indented under subclass 234. Filling apparatus having means by which a number of receivers are filled at the same time from the same principal source.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 100, for plural heads for filling plural compartments of a single receiver when the receiver is claimed or the heads have means of utility only in this connection.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 265+ for dispensers having discharge assistants operating as sets; subclasses 426+ for plural nonserial traps in dispensers.

- 238** This subclass is indented under subclass 237. Filling apparatus in which the entire contents material is divided into units corresponding to the number of receivers before the commencement of the filling of the said receivers.

- (1) Note. The positioning of a manifold between a supply means and delivery means whereby the material delivered to the manifold may be divided into equal

units is not considered subject matter for this group of subclasses but will be found in subclasses 244+ below. This line is followed even though the main supply is not claimed, when the manifold is disclosed as refillable by flow from a supply.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 244+, for filling arrangements having a manifold or divider to apportion a part of the supply prior to delivery and see (1) Note above.

- 239** This subclass is indented under subclass 238. Filling means arranged or supported for pivotal motion such means in one position acting as a divider and in a second position acting to deliver the divided material to the receivers.

- 240** This subclass is indented under subclass 238. Filling apparatus in which a grid-like or cell-like member is applied to or pushed into the contents material to apportion such material.

- 241** This subclass is indented under subclass 238. Filling apparatus requiring the inversion of the filling means and receiver for delivery of the contents material to the receiver.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 319, for filling arrangements for a single receiver wherein the receiver and filling means are manually coupled and inverted.

- 242** This subclass is indented under subclass 237. Filling apparatus comprising means effective to separate a quantity of contents material from the supply.

- (1) Note. The discharge means must at least comprise a valve or valved trap, but discharge assistants of the Class 222, Dispensing, subclasses 251+ type are included.

- 243** This subclass is indented under subclass 242. Filling apparatus which permits some freedom of choice in the operation of the several filling means, not all filling means being necessarily operated simultaneously.

SEE OR SEARCH CLASS:

222, Dispensing, subclass 266 for sets of dispensing units with selecting means; subclasses 278+ for alternatively usable discharge assistants in dispensers; subclasses 426+ for stationary traps not necessarily operated simultaneously.

- 244** This subclass is indented under subclass 242. Filling apparatus having a chamber-like means with laterally spaced outlets or delivery means in the flow path between the supply means and the filling head means, which acts to distribute or feed material to the several filling heads.

SEE OR SEARCH THIS CLASS, SUBCLASS:

238+, for divider type means not however in a fixed system between supply source and delivery means.

- 245** This subclass is indented under subclass 244. Filling apparatus in which the manifold or divider is of the displacement type, e.g., wherein a means decreasing the chamber volume causes the liquid level to rise and overflow into the outlet means which were previously above the level in the chamber or manifold.

SEE OR SEARCH CLASS:

222, Dispensing, subclass 319 for dispensers of this type.

- 246** This subclass is indented under subclass 237. Filling apparatus having means effective to affirmatively separate the receiver from its supporting or holding means or in which the supporting or holding means for the receiver may be adjusted for different sizes of receivers.

SEE OR SEARCH THIS CLASS, SUBCLASS:

194, for automatic control involving the ejection or release of a filled receiver and see the Search Notes to that subclass for other ejectors.
378, for plural interchangeable, selective, or adjustable receiver supports, and see the search notes to that subclass for adjustable supports of various types.

- 247** This subclass is indented under subclass 234. Filling apparatus comprising means to assist hand filling of receivers.

SEE OR SEARCH THIS CLASS, SUBCLASS:

391, for other aids to manual filling, and see the search notes thereto.

SEE OR SEARCH CLASS:

53, Package Making, subclasses 390+ for apparatus which are aids to manual packing where closing of the package is included or wherein articles are placed in receivers.

- 248** This subclass is indented under subclass 234. Filling apparatus in which two filling means operate out of phase, e.g., one is necessarily inoperative for filling while the other is operating to fill a receiver.

SEE OR SEARCH THIS CLASS, SUBCLASS:

99, for filling apparatus comprising plural diverse filling lines, one line being out of phase or out of step with the other.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 265+ for sets of discharge assistant units which may operate alternately; subclass 278 for alternatively usable units in sets of dispensers.

- 249** This subclass is indented under the class definition. Apparatus comprising means to confine, compress or change the shape of material by closing or contracting an open or too-large form or the like about the material in a direction normal to the material's direction of movement or flow, whereby expansion if any is permitted longitudinally of the said flow path.

(1) Note. This operation normally affects the entire supply or charge and is basically the transformance of a supply holder which is open or enlarged for convenience in refilling into a closed or confined flow path corresponding to the shape and/or size of the receiver, the shaping or compressing, if any, depend-

ing on the nature of the material in the charge.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

81, for apparatus including means for contracting a trap to form a compacted charge, the trap being of the solid trap type.

250 This subclass is indented under the class definition. Apparatus comprising means defining a source of contents material and means defining a receiver engaging means, said means having movement relative to each other which motion is concerned with the filling relation and may occur before, after, or at the time of the said filling relation.

(1) Note. This subclass comprises chiefly those devices in which the filling head is lowered into engagement with the receiver, and since this is the usual purpose for lowering material outlets with respect to the supply, subcombinations have been included.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

129+, for filling systems having conveying means for supplying successive receivers, especially subclasses 147 and 181 for head or manifold lowering means, including systems having separate movable sleeve or funnel means between the outlet and receiver.

311+, for movable receiver supports to which movement may be imparted by manually moving the receiver, as subclasses 371+ and 377 and see subclasses 346+ for interlocked discharge means, support and/or coupling not having means to move the supply, or receiver to, from or during the flow relation.

348+, for supply means carried receiver flow control opening means.

251 This subclass is indented under subclass 250. Apparatus comprising means to support a receiver against gravity and separate means assisting the flow of contents material from a supply source, said means being so related as

to require relative motion of receiver and flow assisting means away from each other during normal filling operation.

(1) Note. This and the indented subclasses take all discharge assistant-type fillers, which qualify under subclass 250 even where no source of supply is claimed.

(2) Note. This type of filling operation is frequently referred to as "uniform density" filling.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

193+, for such systems having control means responsive to the degree of filling or to the filling head or receiver position resulting from the desired degree of filling.

252 This subclass is indented under subclass 251. Apparatus comprising means encompassing a receiver for the purpose of maintaining the said receiver against spillage, rupture or any other undesired collapse during filling thereof.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

316, and 390, for other external forms or protectors for the receiver, and see the search notes to subclasses 316 and 390.

253 This subclass is indented under subclass 251. Apparatus having means other than manual means for applying motive force to the means supporting the receiver.

254 This subclass is indented under subclass 251. Apparatus having means for positioning the receiver with respect to the discharge assistant, from which it recedes, the resistance against movement of said positioning means being varied throughout the range of movement thereof.

255 This subclass is indented under subclass 251. Apparatus having some means in addition to the discharge assistant at the terminus of the flow path to slow down or to otherwise change the character of the flow pattern of the contents material.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
264, for filling tubes having no discharge assistant but having flow stops, retarders, or severers.
- 256** This subclass is indented under subclass 251. Apparatus having means for feeding contents material during filling without interruption.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
131+, for continuous flow type apparatus having conveying means to supply successive receivers.
- 257** This subclass is indented under subclass 256. Apparatus in which the means for sustaining the receiver against gravity has movement away from the discharge means during the filling operation.
- SEE OR SEARCH CLASS:
53, Package Making, subclass 245 and 535+ for supports for lowering a receptacle during package filling operations.
- 258** This subclass is indented under subclass 251. Apparatus having means for assisting the movement of contents material from a source to a receiver by an action which partakes of a recurring back and forth linear motion.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
71+, for compacting strokes of a member which may pass through the supply flow path, but not at a time when material is or could be present therein.
- 259** This subclass is indented under subclass 258. Apparatus in which the reciprocating discharge assistant partakes of motion about its longitudinal axis as well.
- 260** This subclass is indented under subclass 258. Apparatus in which the axially reciprocating discharge assistant is a flow path conduit or tube means having the dual function of conducting the flow and assisting the movement thereof as well.
- 261** This subclass is indented under subclass 258. Apparatus in which a flow controlling means is caused to operate in step with some portion of the reciprocating motion of the discharge assistant.
- 262** This subclass is indented under subclass 258. Apparatus in which the means for sustaining the receiver against gravity has movement away from the discharge assistant during the filling operation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
257, for receding receiver support or engaging means combined with continuous contents feeding during filling.
- 263** This subclass is indented under subclass 250. Apparatus having means such that during the filling operation a flow path means and a receiver supporting or sustaining means have relative motion away from each other.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
251+, for filling arrangements having relatively receding discharge assistant and receiver engaging means.
- 264** This subclass is indented under subclass 263. Apparatus which includes some means either (a) for terminating the flow from the filling tube located at the terminus of the said tube or (b) for striking off or wiping the flow across the end of the fill tube.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
255, for discharge assistant and fill tube with additional flow modifier at the foot of the said fill tube.
280, for filling means having means for scraping or leveling material in the receiver by a lateral relative movement of supply means and receiver.
- 265** This subclass is indented under subclass 250. Apparatus provided with means for insertion into a receiver for sustaining or protecting it, or for giving shape to a receiver of flexible nature and including means for removing or assisting

- in the removal of the receiver after filling thereof.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 114, for flexible or collapsible receiver manipulation before or during filling.
- 262, for relatively receding discharge assistant and receiver engaging means having a receding receiver support which may involve an internal form being separated while being filled.
- 281+, for means for manipulating a filled receiver for separation from its support.
- 266** This subclass is indented under subclass 250. Apparatus in which the means for moving the supply or the receiver or both into, during or from the flow relation is alterable as to stroke, size, or other accommodating feature.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 378, for adjustable receiver supports, and see the search notes thereto.
- 267** This subclass is indented under subclass 250. Apparatus having a unitary means for sustaining a receiver against gravity and for controlling the flow of material from the supply to the said receiver.
- (1) Note. The receiver must be entirely supported against gravity before movement to operate the flow controller is begun.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 291+, for multiple passage filling means for diverse materials or flows with flow controlling valve operated by receiver engaging means.
- 319+, for supply and receiver which are manually coupled and inverted for material transfer.
- 351+, for receiver actuated discharge means wherein coupling and valve operation proceed together.
- 357, for filling by applying a receiver to a plunger type follower.
- 268** This subclass is indented under subclass 267. Apparatus in which the unitary receiver support and flow controlling means partake of an oscillating or rotating motion about a fixed point.
- 269** This subclass is indented under subclass 250. Filling apparatus having a receiver gripping means or hold-down means which becomes operative for its intended purpose by the motion of or with the motion of a filling means or receiver elevator.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 165+, for conveying means to supply successive receivers and having movable receiver grip or conveyor associated receiver centering means or clamp.
- 270** This subclass is indented under subclass 250. Filling apparatus having means to move to position or support against gravity both the supply means and the receiver.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 251+, and 263+, for receiver engaging means and supply or supply discharging means relatively receding during the filling operation.
- 271** This subclass is indented under subclass 250. Filling apparatus provided with means which pivotally supports a receiver and includes means for moving the support relative to its pivot to move the said receiver to, from or during the flow relation.
- (1) Note. This subclass is not intended to take simple pivoting supports in the absence of means to cause the swinging of the support. See the search this class, subclass notes below for mere pivoted support means without means to cause movement, i.e., (a mounting means which merely permits swinging movement).
- (2) Note. Simple swinging movement or pivotal movement for moving the support and the receiver into flow relation or from flow relation, that is to say where

there is relative movement between the receiver support and the filling means, is here classified, even in the absence of additional means to cause movement of the receiver and support relative to the filling means.

- (3) Note. The movement of the receiver must be more than mere simultaneous coupling and valve operating movement. See the search notes below for flow controls operated by moving the receiver during coupling of the supply and receiver.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 113, for receivers filled through bottom or while inverted.
 304, for plural diverse passage filling heads with swingable nozzle operated valves. See (3) Note.
 351, for receiver actuated discharge means where coupling or pressure applied by manual or unclaimed means controls flow. See (3) Note.
 377, for filling arrangements in which the supporting means permits pivotal movement of the receiver while being so supported. See (1) Note.

- 272** This subclass is indented under subclass 271. Filling apparatus in which the support for the receiver swings about a generally horizontal axis especially to separate the receiver from the head or support means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 281+, for means for separating a receiver from its support when relative movement of supply and receiver is involved, and see the search notes thereto.

- 273** This subclass is indented under subclass 271. Filling apparatus for turning the receiver and its supporting means through 180° to thereby up-end the receiver or to reverse its position.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 113+, for means filling receivers while inverted.

- 163, for filling systems having a conveyor operating about a horizontal axis and supplying successive receivers.

SEE OR SEARCH CLASS:

- 53, Package Making, subclass 392 for aids to manual filling comprising receptacle turnover devices.

- 274** This subclass is indented under subclass 273. Filling apparatus for use with receivers having internally stoppered means which seat by gravity upon inversion and thereafter are held seated by the internal pressure in the receiver.

SEE OR SEARCH CLASS:

- 53, Packing Making, subclass 264 for filling and closing means for internally stoppered bottles having means for applying such closures.

- 275** This subclass is indented under subclass 250. Filling apparatus which includes means for raising or lowering a receiver whereby to bring such receiver into the flow relationship.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 148+, and 172, for filling systems having conveyors supplying successive receivers to filling relation by a combination of lateral and vertical movements.
 251+, and 263+, appropriate subclasses for relatively receding discharge and receiver support means during filling.
 281, for filling apparatus which include means for manipulating a filled receiver in order to separate the receiver from its supporting means or head.

- 276** This subclass is indented under subclass 275. Filling apparatus in which the means for lifting or lowering the receiver has interconnected therewith additional means to control the discharge from the supply means, such means being external of the receiver, i.e. the receiver is not a necessary link in transmitting the motion or power.

- 277** This subclass is indented under subclass 275. Filling apparatus in which the lifting of the receiver is accomplished through fluid pressure.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 149, for progressively acting turret-type machines having yielding or fluid lift means providing vertical movement of the receivers.
- 278** This subclass is indented under subclass 275. Filling apparatus in which the means for raising or lowering the receiver for filling includes a resilient or spring biased support or element whereby to effect raising or lowering of the said receiver or permit a resilient or lost motion connection between the receiver support and the filling means.
- 279** This subclass is indented under subclass 250. Filling apparatus having a supply means and a filling head which are connected by means of a flexible coupling section or hose and which includes means for movably supporting the filling head for coaction with the receiver.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 387+, for filling apparatus having filling heads shiftably or separably connected to the supply.
- 280** This subclass is indented under subclass 250. Apparatus comprising means to cause lateral motion between the receiver and the filling head so as to effect a wiping action across the surface of the contents to thereby level or scrape said surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 125, for filling apparatus including overflow removal by wiping, scraping or spatulating means.
 283, for apparatus in which the receiver is moved laterally with respect to the head.
- 281** This subclass is indented under subclass 250. Filling apparatus which includes means for moving or otherwise handling a receiver which has been filled for the purpose of separating the receiver from the filling head or support or other means which has related the receiver to the filling means during the filling operation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 176, for apparatus comprising conveying means for receivers and means for removing or ejecting a filled receiver.
 194, for automatic control involving ejection or release of a filled receiver.
 246, for plural receiver filling means having ejecting means therefor.
 265, for means to separate a filled receiver from an internal form.
 272, for tilting type support for separating a receiver from the filling head.
- 282** This subclass is indented under subclass 281. Filling apparatus in which the manipulation is for the purpose of separating the filled receiver from a form which is externally arranged with respect to the receiver during filling.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 316, and 390, for other externally arranged forms for filling purposes.
- 283** This subclass is indented under subclass 250. Filling apparatus in which the receiver partakes of motion in a horizontal plane.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 34, for centrifugal filling means.
 280, for apparatus in which relative lateral motion of the head and receiver serves to scrape or level material at the receiver mouth.
- 284** This subclass is indented under subclass 250. Filling apparatus including means to support or position the supply means for movement to, from or during the flow relation with the receiver.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 231+, for track mounted supply means.
 375, for supports for a removable supply.
 376, for adjustable supports for a supply.

- SEE OR SEARCH CLASS:
 137, Fluid Handling, subclass 581 for movably mounted tanks.
 222, Dispensing, subclass 160 for movably mounted dispensers.
- 285** This subclass is indented under the class definition. Filling apparatus having at least two fluid flow lines or passageways each one being for a fluid having a different physical characteristic or flowing in a different direction or for a different purpose, i.e. one flow not being for filling.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 37+, for filling apparatus comprising diverse fluids under pressure and involving receiver gas content modification, and see the Search Notes thereto, especially subclass 54.
- 286** This subclass is indented under subclass 285. Filling apparatus which additionally includes one or more of means defining a baffle, spreader, displacer, drip ring, filter or screen.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 44+, for filling apparatus involving diverse fluids under pressure and which include gas and other material separating passages or chambers.
- 287** This subclass is indented under subclass 285. Filling apparatus provided with means for effecting a seal between the filling means and the receiver and which seal is caused to expand by the presence of a gaseous material in the filling means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 46, for diverse fluid containing pressure filling systems in which the system fluid is used in a sealing operation.
- 288** This subclass is indented under subclass 285. Filling apparatus including an adjustably mounted or sectioned outlet means which controls the relationship of the receiver to the filling means to thereby determine the contents material level in the receiver.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 368, for filling means having adjustable gage collars but not involving multiple passages for diverse materials.
- 289** This subclass is indented under subclass 285. Filling apparatus having a fluid conduit means which is open to the ambient air or to the supply means and which means has freedom of movement transversely of the direction of coupling movement of the receiver and filling means.
- 290** This subclass is indented under subclass 285. Filling apparatus having a passage for gas or vapor which is external to the liquid line to the receiver and which terminates in the supply container.
- SEE OR SEARCH CLASS:
 222, Dispensing, subclass 481.5 for flexible or remotely connected vent pipes which merely lead to the supply and have no receiver relationship.
- 291** This subclass is indented under subclass 285. Filling apparatus including flow controlling means operated by receiver contact.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 192+, for automatic control of flow cut-off or diversion of supply means which may involve operators which are responsive to receiver contact.
 351+, for receiver actuated supply means wherein diverse materials or flows are not involved, and see the search notes to subclass 351.
- 292** This subclass is indented under subclass 291. Filling apparatus in which the flow control means actuator has a portion which contacts the receiver filling inlet.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 140, and 159, for filling apparatus having means to supply successive receivers and wherein the receiver inlet means may act on the valve controlling means.

- 182, for conveying means to supply successive receivers including head or manifold lowering means and a separate movable sleeve or funnel between the outlet means and the receiver.
- 353+, for receiver actuated supply means including flow paths which telescope during the act of coupling.
- 360+, for receiver actuated supply means having a part of the actuator located adjacent the outlet for contact by the receiver.
- 293** This subclass is indented under subclass 292. Filling apparatus having at least two flow controlling means which are caused to function by means contacting the receiver.
- 294** This subclass is indented under subclass 293. Filling apparatus in which the operating linkage has movement which takes up slack before it becomes effective to act as an actuator for at least one of the valves.
- 295** This subclass is indented under subclass 292. Filling apparatus having an opening to the ambient air defined by a means which encircles the contents material flow line to the receiver or lies within and is coaxial with the contents material flow line.
- 296** This subclass is indented under subclass 291. Filling apparatus in which the fluid outlet means and the flow cut-off means operator are substantially concentric and in which the flow cut-off means is urged toward closed position.
- 297** This subclass is indented under subclass 285. Filling devices in which the filling means comprises a funnel.
- (1) Note. See the class definition, Glossary, for the definition of a funnel.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 199+, for automatic control of flow cut-offs involving funnel-type supply means in which control is by a float means.
- 331+, for other funnel type filling devices not involving plural passages for diverse materials.
- 298** This subclass is indented under subclass 297. Filling devices having a flow controller and stem therefor and in which the means defining the said stem is concentric with the outlet conduit and forms a passage open to the ambient atmosphere at least while the supply outlet is open.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 295, for concentric open vents in diverse passage heads having a receiver-operated supply valve.
- 299** This subclass is indented under subclass 297. Filling devices having a flow conduit which encircles the contents material outlet conduit of the funnel and which is open to the ambient atmosphere at least while the material outlet is open.
- (1) Note. Both vent and supply passages may be uncontrolled, or either or both may be valved.
- 300** This subclass is indented under subclass 297. Filling devices having a flow conduit openable to the ambient atmosphere, located adjacent the wall of the supply portion of the funnel and extending to the top thereof.
- 301** This subclass is indented under subclass 285. Filling apparatus which includes a flow cut-off means.
- 302** This subclass is indented under subclass 301. Filling devices having flow cut-off means for each of at least two flow passages.
- 303** This subclass is indented under subclass 302. Filling devices in which one of the passages is openable to the ambient atmosphere and in which the flow cut-off means therefor is controlled by a buoyant element.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 42+, for filling means controlled by gas condition in a receiver wherein a vacuum line is cut off by a float valve means.

SEE OR SEARCH CLASS:

- 137, Fluid Handling, subclass 202 for float-operated discriminating valves for the release of gas from a diverse fluid containing pressure system.
- 222, Dispensing, subclass 69 for float controlled cut-off for dispenser vent.

- 304** This subclass is indented under subclass 302. Filling devices in which the liquid supply cut-off means is operated by the pivotal movement of the outlet conduit.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 268, for unitary oscillating receiver support and cut-off.
- 271+, for swinging supporting means carrying a receiver into or out of flow relation, with or without interrelated flow control.

- 305** This subclass is indented under subclass 302. Filling devices in which the several cut-off means are either fixedly connected together or are formed as a single member.

SEE OR SEARCH CLASS:

- 137, Fluid Handling, subclass 625 for valve units for control of multiple passage flow.

- 306** This subclass is indented under subclass 302. Filling devices in which the flow cut-off means is urged to cut-off position by the weight of the means itself and which means is rendered inoperative by turning the said device through 180 degrees from its normal operative position.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 241, 273+ and 319+, for other filling devices which depend upon inversion of the said device for operation, especially subclass 274 for swinging receiver supports for receivers with gravity-operated valves.

- 307** This subclass is indented under subclass 301. Filling apparatus having a vent passage which is provided with a trap or chamber for the accumulation of contents material which enters after the receiver is filled.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 36, for plural connected receivers in which a second receiver is supplied with material overflowing from the first receiver simultaneously with continued filling of the first receiver.
- 44+, for diverse fluid pressure systems having means to separate entrained liquids or foam from escaping gas, such means sometimes including a trap, and see the search notes to subclass 44.
- 303, for similar arrangements including a float valve in the chamber which cuts off the vent passage.

- 308** This subclass is indented under subclass 301. Filling devices having a conduit which is open to the supply container and the ambient atmosphere within the receiver, together with a separate liquid conduit leading from the supply means, and in which liquid in the filled receiver acts to block the flow of air to the supply.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 309, for similar apparatus, not including a liquid flow line valve.

- 309** This subclass is indented under subclass 285. Filling devices having plural passage means which extend substantially side by side with outlets extending to approximately the same terminus, one said passageway, being for the flow of air into the supply container and the other for the flow of liquid therefrom.

- (1) Note. The filling relation arises from the fact that flow from the supply is stopped when the level of liquid in the receiver rises to the bottom of the vent passage. Complete closing of the receiver inlet except for the flow passages is not required.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 308, for similar arrangements; however, where the liquid flow line additionally contains a flow controlling means.

SEE OR SEARCH CLASS:

222, Dispensing, subclass 479 for dispensers having coterminously arranged flow paths where the air to the supply is not blocked by the level of material in the receiver.

310 This subclass is indented under subclass 285. Apparatus in which the second of the diverse material passageways is formed by some means which holds the supply outlet means in spaced relation to the receiver inlet means so that air for example may escape therebetween.

(1) Note. In order to qualify for this subclass there must be some modification of the area which defines the supply outlet means in the region of the receiver inlet whereby to define a passageway when the receiver is in filling position.

311 This subclass is indented under the class definition. Apparatus comprising a supply outlet or filling head claimed in combination with a receiver or including some means which especially cooperates with a receiver in a filling relationship beyond the mere requirement of a dispenser, i.e., means which perform their function only in connection with some independent receiver.

(1) Note. A tapered flow-path member comprising a funnel or material guide is considered to be filling means even though the taper is slight.

312 This subclass is indented under subclass 311. Filling apparatus in which the supply means is provided with an expandable filling tube or coupler means which enters the receiver whereby the said receiver is centered or held with respect to the supply means by the expansion of the said means internally of the receiver.

SEE OR SEARCH THIS CLASS, SUBCLASS:

265, for means to separate a filled receiver from an internal form.

316, for inserted or externally applied forms for flexible or collapsible receivers where such form is neither extensible nor expansible.

390, for inserted or external forms for receivers to aid in filling operations, and see the search notes thereto.

391, for material guides supported on receivers where the guide is not tapered. See (1) Note.

313 This subclass is indented under subclass 311. Filling apparatus for filling receivers which are readily bendable, foldable or of distortable character, generally of the nonmetallic type and not shape sustaining as compared for example with bottle, jars or cans.

(1) Note. The receiver must be claimed or the supply outlet or receiver support must have features not usable in the same way with rigid receivers.

SEE OR SEARCH THIS CLASS, SUBCLASS:

10, 68, 77, 114, 166, and 337, for methods and apparatus there classified in which the receiver is of flexible or collapsible character.

314 This subclass is indented under subclass 313. Filling apparatus provided with means for affixing the receiver or a liner for the receiver to some portion of the filling apparatus whereby it is held or supported relative to the said filling apparatus.

SEE OR SEARCH CLASS:

53, Package Making, subclasses 570+ for means to form and fill a bag and subclasses 382.1+ for a package making device having means to open a hinged closure.

248, Supports, subclasses 95+ for bag supports and see (2) Note to that subclass of that (248) class for a statement of the line.

315 This subclass is indented under subclass 314. Filling apparatus including a chair-like support and/or a clamp especially adapted to cooperate with a valve bag.

SEE OR SEARCH THIS CLASS, SUBCLASS:

68, for filling arrangements involving valve bag type receivers there classified.

- 83, for other valve bag type filling means there classified.
- and see the search notes to subclass 271.
- 316** This subclass is indented under subclass 314. Filling apparatus comprising means either encompassing or entering a receiver or receiver inlet means for the purpose of maintaining the said receiver against collapse during the filling thereof.
- 320** This subclass is indented under subclass 319. Filling apparatus which includes means for (1) affirmatively segregating some portion of the supply from the remaining supply, (2) trapping off a portion of the supply or (3) controlling flow.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
390, for receiver forms to aid in filling operations, and see the search notes thereto.
- SEE OR SEARCH CLASS:
222, Dispensing, appropriate subclasses, for specific discharge assistants, traps, and/or discharge controllers.
- 317** This subclass is indented under subclass 314. Filling apparatus which include means for controlling the flow to the receiver as by a discharge assistant, trap or valve.
- 321** This subclass is indented under subclass 320. Filling apparatus in which the discharge assistant, trap, or valve is caused to become operative by means contacting the receiver to be filled.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
222, Dispensing, appropriate subclasses, for specific discharge assistants, traps and/or discharge controllers.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
351+, for receiver operated discharge means, and see the search notes to Class 351.
- 318** This subclass is indented under subclass 311. Filling apparatus in which the filling is accomplished by movement of the receiver or the like relative to the filling means such that the receiver and filling means are in a cylinder and piston like relationship.
- 322** This subclass is indented under subclass 320. Filling apparatus in which the supply means is capped or closed by a means which is also the contents material trapping or segregating means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
21+, for means for filling or refilling dispensers by the operation of means causing or controlling dispensing.
251+, for systems in which the supply and/or receiver are supported for relative receding motion during filling.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
22+, for apparatus for filling or refilling dispensers which comprise a removable closure for the supply container.
379+, for nonuse covers or receivers supported by the supply container requiring removal for use.
- 319** This subclass is indented under subclass 311. Filling apparatus in which the supply means and receiver are brought together by hand for connected flow relation and the resulting organization or system is thereafter inverted to effect filling of the said receiver.
- 323** This subclass is indented under subclass 311. Filling apparatus in which the filling action results by the delivery of material from the supply chamber to the receptacle through a siphonic action, i.e., a flow line means having a delivery tube which has one short leg and one long leg, necessary differential flow pressure being maintained after it has once been established by the atmosphere and gravity.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
271+, for swinging supports for receivers, especially subclasses 273+ for supporting means for inverting a receiver,

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
230, for filling means having siphon flow control means and see the search notes thereto.
- 324** This subclass is indented under subclass 311. Filling apparatus having a supply delivery means but not including flow cut-off means, contents material constantly flowing from said supply.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
131+, for continuous flow type filling arrangements including means to supply successive receivers.
- 325** This subclass is indented under subclass 311. Filling apparatus for filling cooperation with receivers having plural openings, at least one of which is a filling opening, or having plural compartments.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
15, for siphon bottle filling apparatus having diverse filling openings.
18+, for filling apparatus for dispensers.
100, for apparatus for placing separate charges in compartments of a receiver where a compartmented receiver is claimed or where the filling system has features having utility only in connection with compartmented receivers.
- 326** This subclass is indented under subclass 325. Filling apparatus including additional means to cap or close one of the openings of the receiver.
- 327** This subclass is indented under subclass 326. Filling apparatus for receivers further characterized by having a tubular configuration open at both ends.
- 328** This subclass is indented under subclass 311. Filling apparatus in which the filling means or the support therefor has a handle or hand grip and is additionally provided with special receiver grasping or engaging means whereby the said filling means or the support therefor comprises a handle or lifting means for the resulting system.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
363+, for receivers having means to support the filling supply, and see the search notes to subclass 363.
- SEE OR SEARCH CLASS:
222, Dispensing, subclass 323 and 465 for dispensers having handles or hand-grips on the supply container.
- 329** This subclass is indented under subclass 311. Filling apparatus which involve a penetrating or piercing means, which is supply means carried, receiver carried or a receiver adjunct means carried for piercing some part of the system to thereby establish a flow path between the supply means and the receiver.
- (1) Note. A knife-edged valve has been classified on the basis of other claimed features.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
19, for the filling or refilling of dispensers involving a cutter or punch for a gas pressure cartridge.
98, for filling combinations including a separate punch.
- SEE OR SEARCH CLASS:
53, Package Making, subclasses 513+ for package making machines having means to cut the contents material.
222, Dispensing, subclasses 80+ for dispensers having cutters and/or punches, especially subclass 80 for means for cutting the contents material, and see the search notes to subclass 80 and the class definition of Class 222. See also (1) Note above.
- 330** This subclass is indented under subclass 329. Filling apparatus in which the said penetrating or piercing means is carried by the receiver.
- 331** This subclass is indented under subclass 311. Filling apparatus which comprises a funnel, i.e., a fluid supporting and guiding means, gravity discharged, which generally speaking

- has an inlet opening of greater extent than its outlet opening, with or without additional flow controlling means.
- (1) Note. A funnel is intended to receive an unconfined flow, and its outlet is to be inserted within the receiver inlet. In the combinations herein claimed the funnel may be a first, second or third separable portion of a filling system, and may be claimed in any combination with a preceding supply or succeeding receiver or both, or as a subcombination.
- (2) Note. So-called funnels with dispensing-type discharge assistants, e.g., movable traps, antibridging screw conveyors etc., have been placed in Class 222 in appropriate subclasses.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
365+, and 391, for material guides for filling and see the class definition, section II for the distinction between a material guide and a funnel.
- SEE OR SEARCH CLASS:
222, Dispensing, appropriate subclasses and see (1) Note above.
249, Static Molds, subclasses 105+ for funnel-type filling means with mold receiver.
- 332** This subclass is indented under subclass 331. Filling apparatus which includes means serving as a connector, a guide or a support whereby the said funnel may be removably related in flow relation to a supply source.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
342+, for nonuse support means for funnels especially subclass 343 for funnels supported on a supply means and requiring separation therefrom for use.
- 333** This subclass is indented under subclass 331. Filling apparatus in which the supply portion of the funnel or the outlet thereof is asymmetrically arranged with respect to the inlet of the receiver when the said funnel and receiver are in filling relationship.
- 334** This subclass is indented under subclass 333. Filling apparatus in which the funnel outlet means comprises a nozzle or spout, a portion at least of which extends at right angles to the vertical when the funnel and receiver are in normal filling position.
- 335** This subclass is indented under subclass 331. Filling apparatus in which the funnel has a flow controlling means which opens to permit discharge of material when the said funnel is in position on the receiver to fill same.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
351+, for receiver actuated discharge means, and see the search notes to subclass 351.
- 336** This subclass is indented under subclass 331. Filling apparatus in which the funnel is provided with a valve and a supporting bail or handle, lifting of the said funnel bail or handle closing the valve.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
328, for apparatus in which the filling means or support provides a handle for the receiver.
- 337** This subclass is indented under subclass 331. Filling apparatus in which the funnel is constructed, arranged and intended to be foldable, bendable, collapsible or flexible.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
313+, for other filling systems involving flexible receivers, and see the search notes to subclass 313.
- SEE OR SEARCH CLASS:
222, Dispensing, subclasses 92+ for collapsible wall dispensers; subclass 206+ for resilient wall dispensers; subclasses 527+ for dispensers having foldable, collapsible or flexible outlet extensions.

- 338** This subclass is indented under subclass 337. Filling apparatus in which the funnel when not in use for filling is supported for storage in or on the receiver.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
342+, for other support means for funnels when such funnels are not in use and including storage on the supply container.
- 339** This subclass is indented under subclass 331. Filling apparatus in which the funnel is provided with means to prevent swirling or splashing of the contents material or wherein the funnel has a cover or shielding means.
- SEE OR SEARCH CLASS:
222, Dispensing, subclass 192 for splash preventers in the supply containers of dispensers.
- 340** This subclass is indented under subclass 331. Filling apparatus including means to relate the funnel to the receiver to position it against the effect of gravity by means other than or in addition to the basic funnel elements so that the said funnel may be supported on the receiver through interposed means or may be supported by means apart from the receiver or may be supported in nonuse relation.
- (1) Note. In this subclass the funnel is provided with legs, collars, etc., usually engaging the receiver outside the inlet, in addition to the funnel outlet entering the receiver inlet.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
375, for support means for removable supply containers,
376, for means adjustably supporting the supply.
- SEE OR SEARCH CLASS:
222, Dispensing, subclasses 173+ for supports for dispensers.
248, Supports, subclass 94 for supports for funnels, the funnel claimed by name only.
- 341** This subclass is indented under subclass 340. Filling apparatus for supporting the funnel means otherwise than directly on the receiver.
- 342** This subclass is indented under subclass 341. Filling apparatus having supporting means for the funnel when not used as a filling means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
379+, for nonuse supporting means for filling apparatus there classified.
- 343** This subclass is indented under subclass 342. Apparatus having a funnel so combined with the supply container as not to be usable until separated therefrom.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
332, for funnels with connector, guide or support means for removably relating the said funnel to a supply source in flow relation.
380+, for other nonuse supported receivers requiring separation from the supply container for use.
- SEE OR SEARCH CLASS:
210, Liquid Separation or Purification, particularly subclasses 155+ for strainers (including funnel type) detachably mounted on containers whose contents are to be strained.
222, Dispensing, subclass 460 for containers having funnel type outlets.
248, Supports, subclass 94 for strainer or funnel type supports including nominally claimed funnels.
- 344** This subclass is indented under subclass 331. Filling apparatus in which the funnel is provided with a flow controlling means having an actuator or extended stem or handle means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
203+, for funnel arrangements which are level or overflow responsive being closed by a float in which the valve stem is accessible at the top of the said funnel.

- 298, for funnels in which a concentric valve forms a valve stem.
- 345** This subclass is indented under subclass 344. Filling apparatus in which the actuating means is so connected to the valve actuator as to have movement relative thereto when operated.
- 346** This subclass is indented under subclass 311. Filling apparatus which requires the proper positioning of a receiver with respect to the supply in order to unblock the discharging means or permit the operation of the discharge means or coupling effecting means.
- (1) Note. The purpose of this subclass is to collect art which represented something more than complicated valve operators. The apparatus should comprise means preventing operation of the flow controlling valve or the like until the coupling is effectively made and/or precluding disconnection until a flow line valve is closed. In other words the valve can be operated only when the coupling is made or after the coupling has been made. This concept requires an additional blocking element in the train of establishment of the flow relation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 155, for in interlock means between a discharge means and a conveyor for supplying successive receivers which means is not part of the operating means to establish flow relation.
- 207, for automatic control of flow or cut-off including receiver positioned interlock means and subclass 208 for coupling dislodgment trip means.
- 347** This subclass is indented under subclass 346. Filling apparatus in which the coupling effecting means remains operative to continue the coupled relation during the flow of contents material to the receiver.
- 348** This subclass is indented under subclass 311. Filling apparatus which includes supply attached means for engaging a receiver inlet-controlling means for opening the same.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 329, for puncturing type connecting means carried by the supply means to form a flow passage or inlet in the receiver.
- SEE OR SEARCH CLASS:
- 137, Fluid Handling, subclasses 614.02+ for separable flow path sections with a valve in each, the valves being operated by the act of joining or disconnecting the sections.
- 251, Valves and Valve Actuation, subclasses 149+ for separable flow path sections with a valve in one section, the valve being operated by the act of joining or disconnecting the sections.
- 349** This subclass is indented under subclass 348. Filling apparatus in which the inlet flow control means of the receiver is opened by the supply means and receiver coupling motion.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 351+, for supply means flow controllers which are actuated by the relative movement between the supply means and receiver.
- 350** This subclass is indented under subclass 349. Filling apparatus in which the receiver is provided with a flow inlet means having a hinged covering or closing means which may be contacted externally of the said inlet means.
- SEE OR SEARCH CLASS:
- 53, Package Making, subclasses 382.1+ for a package making device having means to open a hinged closure.
- 222, Dispensing, subclasses 149+ for dispensers having means constructed to pass through the dispenser outlet passage to clean the same.
- 351** This subclass is indented under subclass 311. Filling apparatus comprising a receiver and supply means in which the relative movement between the receiver and supply means in bringing them into coupling or flow interchange relation either permits or causes discharge of contents material to the said receiver.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 21+, for means for filling or refilling dispensers by the operation of means causing or controlling dispensing.
- 318, for filling a receiver which is telescoped over the filling head and withdrawn.
- 330, for puncturing means on the receiver to open the supply.
- 335, for funnel type filling apparatus with a valve which opens when the funnel rests on the receiver.

SEE OR SEARCH CLASS:

- 137, Fluid Handling, subclasses 614.02+ for separable flow path sections with a valve in each, the valves being operated by the act of joining or disconnecting the sections.
- 251, Valves and Valve Actuation, subclasses 149+ for separable flow path sections with a valve in one section, the valve being operated by the act of joining or disconnecting the sections.

352 This subclass is indented under subclass 351. Filling apparatus in which the supply means is moved bodily relative to a fixed receiver to effect discharge of material after the coupling or flow path is established.

- (1) Note. This subclass contains many of the patents pertaining to lubricating guns which are hand held and manipulated, the motion of the supply source or gun relative to the grease receiver or fitting causing flow of the lubricant from the said supply means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 267+, for unitary receiver support and flow controller in which the support is mounted to and/or has means for causing movement of the receiver into flow relation.
- 353+, for receiver actuated supply means in which motion of the receiver into coupling relationship with the supply means telescopes the flow paths elements.

353 This subclass is indented under subclass 351. Filling apparatus in which the act of bringing the receiver into flow relation with the supply means effects the sliding or interfitting movement of the terminal flow path elements into one another to thereby permit flow.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 140, and 157, for filling systems having conveyor means to supply successive receivers and no-can-no-fill arrangements comprising head elements moved by receiver pressure in filling position.
- 291+, for multiple passage filling means for diverse materials having valves operated by engagement with a receiver.
- 352, for receiver actuated supply means in which the supply or head is movable and which movement may result in the telescoping of the flow path elements.

354 This subclass is indented under subclass 353. Filling apparatus wherein (1) the connection between the receiver contacting means and the supply discharge control means is such that during part of the actuating means travel the receiver contacting means has movement without producing any movement of the supply discharge control means, or (2) the telescoping parts are connected by links or other mechanical movements.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 294, for other mechanical or lost motion connections in arrangements having multiple passage filling means wherein plural valves are operated by a receiver.

355 This subclass is indented under subclass 353. Filling apparatus having a connection from the receiver to the supply discharge means which is external to the flow confining elements.

356 This subclass is indented under subclass 353. Filling devices in which control of the supply means is effected through contact of its terminal flow path element with the receiver base or bottom.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 374, for supply means having a filling tube extending to or nearly to the bottom of the receiver.
- 357** This subclass is indented under subclass 351. Filling apparatus in which the receiver is applied as a handle or operator to a plunger type follower, i.e., a means which applies force upon or through all of the material in the supply to urge said material toward and through the outlet of the said supply means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 27, for filling dispensers having followers, the filling being effected by the operation of the means which causes or controls dispensing.
- 358** This subclass is indented under subclass 351. Filling apparatus in which the receiver is in the form of a scoop or cabinet type drawer, said receivers in general being gravity filled as for example by bottom discharge from a bin or hopper. In general also the scoop or drawer is a removable part of the cabinet or bin and its exterior configuration corresponds to that of the cabinet.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 108+, for scoop-type filling means.
 110, for scoop-type receivers filled by immersing or dipping them into the supply container.
 369+, for filling means including guides and the like and not involving dipping, immersing, or receiver actuated flow controlling means.
- SEE OR SEARCH CLASS:
 294, Handling: Hand and Hoist-Line Implements, subclasses 27.1+ and other appropriate subclasses for supports for engaging receptacles and having handles whereby the receptacle may be manipulated in the same manner as a scoop, the support not serving as a material flow path, and subclass 55 for scoops, per se.
- 359** This subclass is indented under subclass 351. Filling apparatus in which the supply discharge means is actuated by the force of gravity upon the receiver when said receiver is in contents material receiving position.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 83+, for filling apparatus involving the weighing of contents material.
 139, and 153, for filling apparatus involving conveying means to supply successive receivers including automatic control which may involve weight of contents material.
- 360** This subclass is indented under subclass 351. Filling apparatus in which the discharge operator is positioned proximate the supply means outlet for ready access thereto by the receiver.
- 361** This subclass is indented under subclass 360. Filling apparatus in which there is included some motive means which becomes operative for assisting in the actuation of the supply means in accordance with the demands made thereon by the receiver and transmitted through a switch or pilot valve.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 46, for diverse fluid containing pressure systems in which system fluid is used to perform valving or lifting operations.
 141, and 160, for filling systems involving successive receivers and no-can-no-fill means therefor which includes servo mechanisms.
 219, for automatic control for cut-off means including electromagnetic trips.
- SEE OR SEARCH CLASS:
 251, Valves and Valve Actuation, subclasses 25+ for valve operating servo systems generally.
- 362** This subclass is indented under subclass 360. Filling apparatus in which the actuating means is so connected to the supply controlling means as to move relative thereto when operated.

SEE OR SEARCH CLASS:

251, Valves and Valve Actuation, sub-classes 213+ for mechanical movement valve actuators.

363 This subclass is indented under subclass 311. Filling apparatus having means to substantially support the weight of this supply means against gravity on the receiver.

- (1) Note. In this and in the indented subclasses will be found supply means with some added member or configuration which bears on the receiver without however involving a flow intercommunicating securing means. See for example subclass 383 for receiver and supply securing means wherein joining into flow relation is of the essence rather than the support of the supply means against gravity.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

331+, for funnel type filling means which means in general are supported by the receiver.
 375, for filling supply means having the supply container removable from the outlet or head.
 383+, for supply and receiver joined by a flow-confining connection. See (1) Note.

364 This subclass is indented under subclass 363. Apparatus in which the supply means requires inversion thereof in order to establish a flow relation or transfer of material from the supply to the receiver, there being no further control of flow or interposed head as part of the supply means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

106, for apparatus for dumping or draining plural supply holders into a common receiver.
 319+, for filling arrangements involving manually coupling and inverting the supply and receiver means.

365 This subclass is indented under subclass 363. Filling apparatus in which the filling supply is in the form of a contracting flow path or flow guiding means comprising (1) a funnel-shape member lying entirely within the receiver or secured to the receiver externally of the inlet, or (2) a modification of or attachment to the supply outlet whereby part at least of the weight of a hand-held supply can be supported by the receiver.

- (1) Note. See the class definition, section II, for definitions of the terms “funnel” and “material guide”.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

391, for manual filling means including material guides.

366 This subclass is indented under subclass 365. Filling apparatus in which the supply means is maintained in part at least against the force of gravity by the receiver and is manipulated by the hand of the operator.

367 This subclass is indented under subclass 311. Filling apparatus including means to alter or vary the size of the filling head or of its receiver contact area or including at least two separately usable filling head means any one of which may be substituted for the other or be available as desired for use at one time.

368 This subclass is indented under subclass 311. Filling apparatus provided with (1) an adjustable collar-like member which serves to variously position the receiver with respect to the outlet nozzle of the filling means, or (2) having a member which has movement with respect to the outlet means of the filling head and which acts either to permit “leak proof” engagement between the receiver and said filling means or as a means to occupy a portion of the volume of the receiver.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

222, for automatic control means having an adjustable receiver engaging or coacting means.
 287, for multiple passage filling means having a gas expanded seal.

- 288, for multiple passage filling means having an adjustable outlet element which controls the level and the receiver.
- 369** This subclass is indented under subclass 311. Filling apparatus including some means for supporting a receiver, means for directing the receiver into filling relationship, or means for shielding or protecting the receiver from drip, condensate, or the like from the filling means.
- (1) Note. Centering bells, drip shields and guide means in general are found in this and in the indented subclasses.
- (2) Note. The receiver support must be some additional nonstructural portion of the system supporting member. It must be a member readable as more than a portion of the dispenser or dispenser support even though such portion may be claimed as a receiver support.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 129+, for conveying means to supply successive receivers to filling means.
- 250+, for supports for moving receivers into, out of or during flow relation.
- SEE OR SEARCH CLASS:
- 137, Fluid Handling, subclasses 343+ for supports for fluent material handling systems.
- 222, Dispensing, subclasses 173+ for dispenser supports.
- 370** This subclass is indented under subclass 369. Filling apparatus having (1) means for guiding, centering or directing the receiver during coupling movement into filling relation with the dispenser whereby the receiver will be in proper relationship with the dispenser or (2) shielding or protecting means to guard the receiver against dispenser condensate, run-off and the like.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 390, for external forms or protectors for receivers to aid in filling operations.
- 371** This subclass is indented under subclass 370. Filling apparatus in which the guard or guide means has a back and forth movement usually axially of the dispenser outlet nozzle.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 291+, for multiple passage filling means in which a valve is operated by a receiver engaging means.
- 353+, for filling arrangements in which the supply means is actuated by the motion of the receiver and in which the act of coupling telescope the flow path elements.
- 372** This subclass is indented under subclass 370. Filling apparatus having a supporting means for the receiver which is configured to contact the neck portion of the receiver or its inlet rim portion.
- (1) Note. Most of the patents in this group comprise a combined guide and supporting means whereby the receiver is directed toward that portion of the means which engages the receiver neck or inlet rim.
- 373** This subclass is indented under subclass 370. Filling apparatus including means for directing the receiver to pass beneath the dispenser outlet in a plane which is generally normal to the longitudinal axis of the dispenser outlet means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 358, for scoop or drawer type receivers which are gravity filled from a supply source, the supply source control means being actuated by the movement of the receiver laterally of the outlet thereof.
- 360+, for filling apparatus wherein the supply means is actuated by the movement of the receiver and wherein such movement may be transverse to the delivery outlet means.
- 374** This subclass is indented under subclass 369. Filling apparatus in which the filling head means is provided with a terminal element which in the filling operation extends interiorly

of the receiver and terminates proximate the bottom thereof.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

356, for supply control means which contacts the bottom of a receiver.

375 This subclass is indented under subclass 369. Filling apparatus which additionally includes means for removably positioning and maintaining a supply container means against the effect of gravity.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

340, for funnel type filling means having an additional support.

376 This subclass is indented under subclass 369. Filling apparatus which additionally has means for adjustably positioning the supply against the effect of gravity.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

284, for a supply support movable to, from or during flow relation with a receiver.

363+, for filling arrangements in which the filling supply is supported by the receiver.

375, for filling arrangements including means for supporting a removable supply container.

377 This subclass is indented under subclass 369. Filling apparatus in which (1) the supporting means permits pivotal movement of the receiver while being so supported or (2) the receiver is supported by means cooperating with the receiver bail.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

271+, for means moving the supply means and/or receiver into, from or during flow relation including a swinging support for the receiver.

372, for filling apparatus wherein the receiver neck or inlet rim is engaged by the supporting means.

378 This subclass is indented under subclass 369. Filling apparatus having means to variously position the receiver to be filled against the force of gravity including positioning means which may be substituted one for the other or may be chosen as desired from at least two separately usable positioning means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

152, for turret type supports for successive receivers, the conveyor elements being adjustable to containers of different sizes.

177, for other conveyors for successive receivers which are adjustable to receiver size.

246, for adjustable receiver supports with plural filling heads.

266, for adjustable supports which are movable to bring the receiver to filling position, remove it or manipulate it during filling.

278, for yielding lift type supports for receivers.

367, for adjustable contact area or plural interchangeable or selectively usable coupling means or flow paths.

376, for adjustable means supporting the supply.

379 This subclass is indented under subclass 369. Filling apparatus in which some system part is provided with a supporting means or closure means for application thereto when the said system or system part is not serving its function as filling apparatus.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

342, for funnel type nonuse nonsystem supports.

SEE OR SEARCH CLASS:

222, Dispensing, subclass 530 for nonuse supports for dispenser hose, etc; subclasses 538+ for nonuse housing or securing means for discharge guides.

248, Supports, subclasses 95+ for bag supports and see (2) Note to that subclass of that (248) class for a statement of the line.

- 380** This subclass is indented under subclass 379. Apparatus having a receiver so combined with the supply container as not to be usable until separated therefrom.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 343, for funnels supported on a supply container so as not to be usable until separated therefrom.

SEE OR SEARCH CLASS:

- 15, Brushing, Scrubbing, and General Cleaning, subclasses 517+ for containers for a material supply in combination with a separable applicator, which may be a part of the closure for the container, which transports the material from the container and applies it to a work surface.

- 381** This subclass is indented under subclass 380. Apparatus in which the receiver is designed to act as a closure for an opening of the supply container.

- (1) Note. Most of these devices are secured to the under side of the closure means and are for measuring or for dose-measuring and must be removed from the main container before material can be poured thereinto.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 112, for receivers attached to a supply closure and stored therein in at least partly immersed (i.e. filled) position. See (1) Note.
- 319+, for manually coupled and inverted supply and receiver combinations.
- 358, for scoop or drawer type receivers stored within a casing or otherwise supported in flow receiving position on the supply.

- 382** This subclass is indented under subclass 311. Filling apparatus having a flexible conduit for conducting contents material from the supply source to the receiver the said conduit having a terminus which is provided with some means for holding the said conduit in contact with the receiver.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 363+, for filling apparatus wherein the filling supply is supported by the receiver.
- 383+, for filling apparatus including means for securing the receiver and supply together.
- 387+, particularly subclass 389 for hand held filling means which are shiftably connected to the supply means.

- 383** This subclass is indented under subclass 311. Apparatus including a receiver or receiver coacting means having a readily separable means for fixedly coupling the receiver and supply means together.

- (1) Note. For classification in this group the securing means for joining receiver and supply must be set forth by more than name only, i.e., the specific end configuration must be set out, not a mere statement that it is a coupling. Screw threaded or friction held couplings are not considered sufficient for classification in this class in the absence of a claimed receiver-dispenser combination.
- (2) Note. Most of the patents in this and the indented subclasses relate to hand held and supported supply means of the grease gun type. The receiver and supply securing means is not intended to be a coupling means whereby the supply means after coupling is supported by the receiver but rather a pressure retaining connecting means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 311, for special receiver-dispenser coacting means as for example, critical angles, sharp edges, and other such special configurations.
- 363+, for filling arrangements wherein the filling supply is supported by the receiver as by suspension means for example.
- 382, for supply means having flexible hoselike conduit means provided with receiver engaging means.
- 392, for filling heads, per se.

SEE OR SEARCH CLASS:

285, Pipe Joints or Couplings, appropriate subclasses for means for joining or coupling flow line sections wherein significant internal wall structure of one section is involved.

384 This subclass is indented under subclass 383. Filling apparatus in which the coupling securing means is in the form of a rotatable terminal sleeve like element which has freedom of movement with respect to a supply conduit means generally about the longitudinal axis thereof.

385 This subclass is indented under subclass 383. Filling apparatus in which the coupling securing means comprises a fixed jaw-like member and a movable jaw-like member, the receiver being clamped between the said jaws.

386 This subclass is indented under subclass 383. Filling apparatus in which the coupling securing means is defined by a flange-like element or finger which is adapted to grip or slip over some suitably arranged fixed abutment or groove on the receiver.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

383, for bayonet type coupling means.

387 This subclass is indented under the class definition. Filling apparatus comprising arrangements effective to permit shifting or separation of the filling head means from the supply means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

279, for movable support means for a hose connected head or supply.

352, for movable supply means receiver actuated to establish flow.

367, for adjustable size filling heads with plural interchangeable coupling means or flow paths.

382, for flexible hose terminals with receiver engaging means.

388 This subclass is indented under subclass 387. Apparatus in which a flexible or collapsible section is provided in the flow path between

the supply means and the receiver engaging element.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

182, for separate movable sleeves between the outlet of the filling means and the receiver combined with supply lowering means and successive receiver conveying means.

389 This subclass is indented under subclass 388. Filling apparatus in which the head means is supported by hand.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

206+, and see (1) Note in the search notes thereto.

366, for supply containers supported at least in part by the receiver and manipulated by hand.

390 This subclass is indented under the class definition. Apparatus comprising means either encompassing or entering a receiver or receiver inlet means for the purpose of maintaining the said receiver against spillage, rupture or any other unwanted collapse during the filling thereof.

(1) Note. The patents forming this subclass generally relate to subcombinations of the class subject matter, i.e., without filling means; however, disclosed in a filling organization for the purposes set forth above and not otherwise classifiable.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

51, for housings for receivers in diverse fluid containing pressure systems for filling.

97, for filling arrangements which include protectors or guards for operators.

109, for scoop type filling means having a separable receiver within the scoop.

252, for other external forms for receivers including means to move the supply and/or the receiver into, from or during the flow relation.

- 265, for filling means which include means to separate a filled receiver from an internal form.
- 272, and 281, for other filling means combined with means to separate a filled receiver from a filling head or support.
- 282, for filling means having external forms including means for positively separating a filled receiver from the form.
- 312, for extensible or expansible centering means or inserted holding means for the receiver.
- 316, for filling apparatus including inserted or external forms for flexible or collapsible receivers.

SEE OR SEARCH CLASS:

- 53, Package Making, subclasses 255+ for package making devices having guide or inserted form or support for article contents.
- 294, Handling: Hand and Hoist-Line Implements, subclasses 27.1+ and other appropriate subclasses for receptacle grapples and lifters with handles thereon.

- 391** This subclass is indented under the class definition. Filling apparatus comprising supply guide or supply containing means having receiver supporting means arranged as an aid to manual filling, gravity flow not being involved, but rather, mere hand placing or dropping into the receiver.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 103, for apparatus for filling receivers with plural materials at separate stations, one station being arranged for manual filling.
- 151, for filling apparatus including conveying means to supply successive receivers involving rotary heads and including manually placed receivers.
- 247, for aids to manual filling in plural filling means apparatus.
- 314, for filling apparatus for flexible or collapsible receivers having receiver securing means.
- 365+, for material guides which are supported at least in part by the receiver,

and see subclass 365 and the class definition, section II, for the meaning of the term.

- 369+, for filling means with receiver coacting means including receiver supports, in other than the manual filling apparatus.

SEE OR SEARCH CLASS:

- 53, Package Making, subclasses 390+ for aids to manual packing, particularly subclass 391 for power driven conveyors for the manual filling apparatus there classified.

- 392** This subclass is indented under the class definition. Miscellaneous filling apparatus not otherwise classifiable herein.

- (1) Note. Miscellaneous filling heads are found here.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 234+, for plural filling heads.
- 250, and 279, for filling heads movable to, from or during flow relation to a receiver.
- 285+, for multiple passage filling heads for diverse passages or flows.
- 329, for puncturing type heads.
- 367, for adjustable area heads.
- 368, for heads with adjustable gage collar, displacement member or seal.
- 374, for heads with elongated fill tube.
- 382, and 383+, for heads with receiver engaging means.
- 387, for heads shiftably or detachably connected to the supply.

END